#### **GIS REGISTRY INFORMATION**

SITE NAME:	Murphy O	1 USA - Cri	ide unit Process	Area
BRRTS#:	02-16-222	638 FID # (if appropriat	ie):	
COMMERCE # (if appropriate):				
CLOSURE DATE:	11/4/04			
STREET ADDRESS:	2400 5	tinson Ave		<u> </u>
CITY:	Superio	or		·
SOURCE PROPERTY GPS COORD WTM91 projection):	NNATES (meters in	x= <u>361593</u>	3 Y= <u>1692829</u>	
CONTAMINATED MEDIA:	Groundwater	Soil	Both	
OFF-SOURCE GW CONTAMINATIO	ON >ES:	Yes	No	
IF YES, STREET ADDRESS 1:	<u> </u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>	45.00
GPS COORDINATES (meters in WT	M91 projection):	X=	Y=	· ·
OFF-SOURCE SOIL CONTAMINAT Specific RCL (SSRCL):	ION >Generic or Site-	Yes	No	<b>.</b>
IF YES, STREET ADDRESS 1:				<u> </u>
GPS COORDINATES (meters in WT	M91 projection):	X=	Y=	<del></del>
CONTAMINATION IN RIGHT OF W	AY:	Yes	No	
DOCUMENTS NEEDED:	•			
Closure Letter, and any conditional clo	sure letter issued	•		$\bowtie$
Copy of most recent deed, including le	gal description, for all affe	ected properties		$\sim$
Certified survey map or relevant portion County Parcel ID number, if used for a Location Map which outlines all properties to parcels to be located easily (8.5x14" if paper of wells within 1200' of the site.	county, for all affected prop within contaminated site boundar	perties 0/-80 ries on USGS topographic map	$\prime$ $\! \!$ $\!$ $\!$ $\!$ $\!$ $\!$ $\!$ $\!$ $\!$ $\!$	, <del> </del>
Detailed Site Map(s) for all affected proposable wells. (8.5x14", if paper copy) This me the source property and in relation to the boungeneric or SSRCLs.	ap shall also show the location of	of all contaminated public streets	<ul> <li>highway and railroad rights-of-way in released soil contamination exceeding ch. NR</li> </ul>	lation to
<b>Tables of Latest Groundwater Analytic</b>			N	IA L
Tables of Latest Soli Analytical Result				.
Isoconcentration map(s), if required to extent of groundwater contamination defined.	If not available, include the late	est extent of contaminant plur	ne map.	N// <del> </del>
GW: Table of water level elevations, v GW: Latest groundwater flow direction	rith sampling dates, and front in the interest of the interest	ee product noted if present map (should be 2 maps if	•	on is
greater than 20 degrees)  SOIL: Latest horizontal extent of con	tamination exceeding gene	eric or SSRCLs, with one c	ontou	区
Geologic cross-sections, if required to				$\boxtimes$
RP certified statement that legal description				, <b>×</b>
Copies of off-source notification letter				N/A
Letter informing ROW owner of residu		able)(public, highway or railro	oad ROW)	I/A
Copy of (soil or land use) deed restric				区



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary John Gozdzialski, Regional Director Northern Region Headquarters 107 Sutliff Ave. Rhinelander, Wisconsin 54501-3349 Telephone 715-365-8900 FAX 715-365-8932 TTY Access via relay - 711

November 9, 2004

Murphy Oil USA, Inc Attn: Liz Lundmark 2407 Stinson Ave Superior, WI 54880

Subject:

Final Case Closure By Closure Committee

Murphy Oil -Crude Unit Process Area, 2400 Stinson Ave,

Superior, WI

BRRTS # 02-16-222638 and 04-16-046256

Dear Ms. Lundmark:

On September 2, 1999, your site as described above was reviewed for closure by the Northern Closure Committee. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On October 1, 1999, you were notified that the Closure Committee had granted conditional closure to this case.

On November 4, 2004, the Department received correspondence indicating that you have complied with the conditions of closure, specifically, recording of a deed restriction for the site. Based on the correspondence and data provided, it appears your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the registry. To review the sites on the GIS Registry web page, visit <a href="http://gomapout.dnr.state.wi.us/org/at/et/geo/gwur/index.htm">http://gomapout.dnr.state.wi.us/org/at/et/geo/gwur/index.htm</a> If your property is listed on the GIS Registry due to groundwater contamination exceeding ch. NR 140 standards at the time of closure, and you intend to construct or reconstruct a well, you will need Department approval. Department approval is required before construction or reconstruction of a well on a property listed on the GIS Registry, in accordance with s. NR 812.09(4)(w). To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at the web address listed above.

If this is a PECFA site, section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement.



If there is equipment purchased with PECFA funds remaining at the site, contact the Commerce PECFA Program to determine the method for salvaging the equipment.

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 715-365-8990.

Sincerely,

NORTHERN REGION

Janet Kazda

Remediation & Redevelopment Program

cc:

File

Jim Hosch, Superior

Dennis Kugle

Gannett Fleming, Inc.

8025 Excelsior Dr

Madison, WI 53717-1900



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor George E. Meyer, Secretary William H. Smith, Regional Director Northern Region Headquarters 107 Sutliff Ave. Rhinelander, Wisconsin 54501-0818 Telephone 715-365-8900 FAX 715-365-8932 TDD 715-365-8957

October 1, 1999

Mr. Mark Miller Murphy Oil USA, Inc PO Box 2066 Superior, WI 54880 Spill # 04-16-846256

Subject: Murphy Oil USA, Inc., Crude Unit Process Area, 2400 Stinson Ave, Superior, WI BRRTS # 02-16-222638

Dear Mr. Miller:

The Department of Natural Resources provided a notice to you that the degree and extent of crude oil contamination at the above-named site was required to be investigated and remediated. We have since been informed that the required investigation and remediation has been accomplished.

On September 2, 1999, the above-named site was reviewed by the Northern Region Closeout Committee for a determination as to whether or not the case qualified for close out under ch. NR 726, Wis. Adm. Code.

Based on the investigative and remedial documentation provided to the Department, it appears that the crude oil contamination at the above-named site has been remediated to the extent practicable under current site conditions, and that no further action is necessary at this time. Therefore, the Department will consider the case "closed," pursuant to NR 726.05(8), if the responsible party sign and record a deed restriction for the property. To document that this condition has been complied with, the responsible party must submit to the Department a copy of the recorded deed restriction, with the recording information stamped on it, within 15 days after the County Register of Deeds returns the deed restriction to the responsible party. The deed restriction may be amended in the future with the approval of DNR if conditions change at the site and the residual contamination is remediated.

The deed restriction is an option that the Department can offer to you in order to close this site. If you choose not to accept this option, you may perform additional investigation and cleanup of the remaining contamination. Note that this additional work may not be eligible for reimbursement through the Petroleum Environmental Cleanup Fund Award (PECFA) Program. You should contact the Department of Commerce to determine eligibility of the additional work for reimbursement.

Enclosed is an example of a deed restriction. Please ask your attorney to draft a specific deed restriction for this site and submit the draft to me. This deed restriction should require regular inspection and maintenance of the concrete and asphalt surface over the site. Department of Natural Resources attorneys will review the draft and return it to your attorney with revisions. After your attorney has made the revisions, you may sign and record the restriction with the County Register of Deeds. A copy of the recorded restriction must be then filed with the Department of Natural Resources.

Please note that this case closure is contingent upon proper documentation of proper abandonment of the





monitoring wells on site. If monitoring wells remain at this site, please provide the documentation that this action has been completed, or have your consultant do so. Please complete Form 3300-5B and send it to my attention at the above address.

If you have any additional information which was not formerly provided to the Department, and which you feel would significantly impact this closure decision, you may submit that information for our re-evaluation of case closure.

If you have any questions, please call me at 715-365-8990.

Sincerely,

**NORTHERN REGION** 

Janet Kazda

Case Closeout Committee

**→** cc:

File

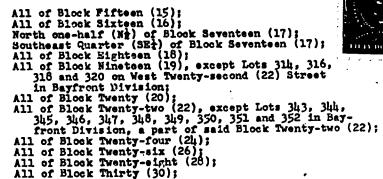
Lori Huntoon, Dept of Commerce

Jim Hosch, Superior

Dennis Kugle Gannet Fleming, Inc 8025 Excelsior Dr Madison, WI 53717 THIS INDENTURE, Made by Lake Superior Refining Co., a Wisconsin corporation, grantor, of Douglas County, Wisconsin, hereby conveys and warrants to Murphy Corporation, a Louisiana corporation, grantee, whose principal office is in ElDorado, Union County, Arkansas, in accordance with the plan of complete liquidation and dissolution adopted by the Board of Directors and Stockholders of the grantor hereinabove mentioned, the following tracts of land and personal property in Pouglas County, State of Wisconsin:



All of the following described lands being on West Twenty-third (23) Street, Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:



The following described Lots being on West Twentyfifth (25) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:

All of Block Thirteen (13), subject to the Northern Pacific Railway Company easement for a right-of-way on Newton Avenue;
All of Block Fourteen (14), subject to the Northern Pacific Railway Company easement for a right-of-way on Newton Avenue;
All of Block Fifteen (15);
All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);



```
All of Block Twenty-two (22);
All of Block Twenty-three (23);
All of Block Twenty-four (21);
    All of Block Twenty-five (25);
    All of Block Twenty-six (26);
    All of Block Twenty-seven (27);
    All of Fractional Block Twenty-eight (28);
All of Block Twenty-nine (29);
    All of Block Thirty (30);
    The following described Lot being on West Twenty-
sixth (26) Street in the Townsite of Superior, in
    the City of Superior, Douglas County, Wisconsin:
    All of Block Thirty-two (32);
    The following described Lots being on West Twenty-
seventh (27) Street in the Townsite of Superior,
    in the City of Superior, Douglas County, Wisconsin:
   All of Block Mine (9);
All of Block Thirteen (13), subject to the Northern
Pacific Railway Company easement for right-of-way
All of Block Thirteen (13), subject to the Northern
Pacific Railway Company essement for right-of-way
on Newton Avenue;

All of Block Fourteen (14), subject to Northern
Pacific Railway Combany essement for Piphe-of-way
an Avenue;

All of Block Fifteen (15);
All of Block Sixteen (16);
All of Block Sixteen (18);
All of Block Seventeen (17);
All of Block Twenty (20);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-three (23);
All of Block Twenty-three (23);
All of Block Twenty-four (24);
All of Block Twenty-six (26);
All of Fractional Block Twenty-five (25);
All of Block Twenty-six (26);
All of Block Twenty-mine (28);
All of Block Twenty-nine (29);
All of Block Thirty (30);
All of Block Thirty-one (31);
All of Block Thirty-two (32), subject to the Northern
Pacific Railway Company easement for right-of-way
on Newton Avenue;
  The following described Lots being on West Twenty-
ninth (29) Street in the Townsite of Superior, in
  the City of Superior, Douglas County, Wisconsin:
 All of Block Seven (7):
All of Block Thirteen (13), subject to the Northern
         Pacific Railway Company easement for right-of-way
 on Newton Avenue; All of Block Fourteen (14), subject to the Northern
```

on Newton Avenue; All of Block Fifteen (15);

Pacific Railway Company easement for right-of-way

All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Mineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-twe (22);
All of Block Twenty-twe (23);
All of Block Twenty-four (24);
All of Block Twenty-five (25);
All of Block Twenty-six (26);
All of Block Twenty-six (26);
All of Block Twenty-seven (27);
All of Block Twenty-eight (28);
All of Block Twenty-nine (29);
That part of Block Thirty (30) lying East of the
East line of the Wisconsin Central Railway
Company right-of-way;
That part of Block Thirty-one (31) lying East of
the East line of the Wisconsin Central Railway
Company right-of-way;

#### Also the following essements:

- 1. A right-of-way easement five feet (5') in width
  for the purpose of laying, maintaining, operating,
  patrolling, altering, repairing, renewing and removing, in whole or in part, a six inch (6')
  supply pipe line for the transportation of crude
  petroleum from the storage tanks of the Lakehead
  Pipe Line Company, Inc. to the refinery owned and
  operated by Leke SuperiorRefining Co., together
  with the necessary fixtures, equipment and appurtenances over, through, upon, under, and across
  that portion of the Lakehead Pipe Line Company,
  Inc. property now traversed by said pipe line as
  it is presently leid and located; and as shown on
  the sketch or plat attached to that certain deed
  from Lakehead Pipe Line Company, Inc. to Superior
  Refinery Ommers, Inc. dated July 23, 1952; and
  recorded in 232 of Deeds, page 231, in the office
  of the Register of Deeds for Douglas County, Wisconsin, said property being situated in Douglas
  County, Wisconsin, together with the rights of
  ingress and egress to and from said right-of-way
  through and over said above described land for
  any and all purposes necessary to the exercise
  by the grantee of the rights therein granted.
  Said easement to be effective as long as crude
  oil is taken through the pipe line system of
  Lakehead Pipe Line Company, Inc., subject to the
  restrictions contained in said easement deed.
- 2. That sertain easement for a six inch (6") pipe line between Superior Refinery Owners, Inc. and the tank farm of the Lakehead Pipe Line Company, Inc. located in the City of Superior, Douglas County, Wisconsin, and described as follows: Commencing at a point on Twenty-sixth Avenue East and East Twenty-third Street; thence generally in an Easterly direction along the North property line

of the Lakehead Pipe Line Company, Inc. to
East Twentieth Street; thence in a Southeasterly direction to Tank No. 5, a total
distance of approximately eight hundred fifty
(850) feet, in the City of Superior, Douglas
County, Wisconsin; thence on East Twenty-third
Street from the Lakehead Pipe Line Company,
Inc. property line to Twenty-third, Avenue East;
thence beneath the tracks of the Northern Pacific
Railway Commany on Nawton Avenue on Twenty-fifth Railway Company on Newton Avenue on Twenty-fifth Avenue East (formerly Newton Avenue) and the tracks of the Northern Pacific Railway Company's ore dock line between Twenty-fifth Avenue East and Twentysixth Avenue East along a line parallel with and distent ten (10) feet Southwesterly, measured at right angles, from the center line of East Twenty-third Street in the City of Superior, Douglas County, Wisconsin; and thence crossing Block Nine (9) on West Twenty-third Street and Block Ten (10) on West Twenty-first Street, in the City of Superior, according to the recorded plat thereof, along a line parallel with and distant two hundred forty (240) feet Southerly, measured at right angles, from the center line of the main track of the Northern Pacific Railway Company's Oregon dock line as now constructed; and crossing sixth Avenue East along a line parallel with and Oregon dock line as now constructed; and crossing the Northern Pacific Railway Company's property in Block Seven (7) on West Twenty-first Street in the City of Superior, Douglas County, Wisconsin, along a line parallel with and distant twenty-seven (27) feet, more or less, Northeasterly, measured at right angles, from the Southwesterly line of said Block Seven (7), from the Northwesterly line of said Block Seven (7), to a point distant two hundred fifty (250) feet Southerly, measured at right angles, from said track center line; together with all easements, rights, contracts, grants, licenses, assignments, and permits of any nature, whether oral or written, and whether recorded or unrecorded, and all rights and interests arising out of adverse possession, or use of any kind or nature respecting the laying of pipe lines used in connection with the operation of said refinery and belonging to Lake Superior Refining Co., or in which it has some right, title or interest, and the maintenance, use, operation, repair, replacement and removal thereof upon, under and across the lands of others, and all pipe or pipes, pumps, compressors, motors, velves, controls, meters and all other equipment and apparatus constituting a part of or used in the operation of said pipe lines, including but not limited to said six inch (6") pipe line between the tank farm of said Lakehead Pipe Line Company, Inc. and said refinery of Lake Superior Refining Co.

STORAGE	CAPACITY (BBLS)	CONSTRUCTION	<u> </u>
Present Tank Nos.			
40 and 41	5,000 each	Welded	
42	56,000	Welded	
50 (F-2) 51 52 53 54 60 and 61	500	Welded	•
51	2,300	. Welded	
52	9,500	Welded	• •
53	20,000	Welded	
ŚĹ	25,000	Welded	
60 and 61	5,000 each	Welded	
63 and 64	10,000 each	Welded	
65 and 66	16,500 each	Welded	
67	20,000	Welded	1.50
68 and 69	48,000 each	Welded	
80 and 81	1,200 each		insulated
82 and 83	1,800 each	Welded,	insulated
84 and 85	2,500 each	Welded.	insulated
86 and 87	16,500 each	Welded	
88 and 89	35,000 each	Welded	
90 and 91	36,000 each	Welded	
92, 93, 94	1,700 each	Welded	
96' '2', '4	250.	Welded	
F-1 (formerly B-1)	250	Welded	•
S-1	600	Welded	
S-2	250	Wolded	•

#### PLATFORMING UNIT - NO. 1 2.

- Platforming furnace Reactors (3)
- b.
- Exchangers heat
- d.

- Exchangers heat
  Separator
  Compressors (2)
  Stabilizing tower
  Pumps and controls
  Platform control house
  Suction drum

- Stripper tower Absorber tower
- Amine regenerator

#### PLATFORMING UNIT - NO. 2

- Platforming furnace Reactors (3) Unifiners
- b.
- ¢.
- f.
- Unitiners
  Exchangers heat
  Compressors (2)
  Stabilizing tower
  Pumps and controls
  Platform control house
  Suction drum g. h.
- i. Stripper tower

That part of the West one-half (W\*) of Section Thirty-six (36), Township Forty-nine (49) North, Range Fourteen (14) West, more fully described as follows: Commencing at the North Quarter (N\*) corner of said Section Thirty-six (36), thence due South along the North-South quarter line, being the center line of Bardon Avenue, a distance of 1456.64 feet to the South property line of Twenty-sixth (26) Avenue extended; thence South 40° 36' West along the South property line of Twenty-sixth Avenue, a distance of 481 feet to the point of beginning; thence continuing in the same straight line a distance of 1323.53 feet to a point; thence South 89° 46' West, a distance of 151.91 feet to a point; thence South 41° 24' East, a distance of 751 feet to a point; thence North 48° 36' East, a distance of 1463.36 feet to a point on the West line of Bardon Avenue; thence due North along the West line of Bardon Avenue, a distance of 207.10 feet to a point; thence North 41° 24' West a distance of 495.66 feet to the point of beginning, containing 24.18 acres, more or less, all in the City of Superior, Douglas County, Wisconsin.

In the area covered by these descriptions most of the streets and alleys have been vacated. Where these descriptions abut on streets and alleys which have been vacated the title of Lake Superior Refining Co. extends to the center of such street or alley.

Also all buildings, structures, fixtures, machinery, equipment and tools comprising and used in and about the conduct and operation of the oil refinery of Lake Superior Refining Co., located upon the tracts of land above described or otherwise, and including but not limited to the following, to-wit:

1.	STORAGE	CAPACITY (BBLS)	CONSTRUCTION
	Present Tank N	08 e	
	1, 2, 3 and 4 5 and 6	1,000 each 1,200 each	Welded Welded
	7, 8, 9, 10, 1 and 12 13 and 14	2,600 each 3,500 each	Welded Welded Welded
	15 (formerly 6 21 and 22 25, 26 and 27	25,000 each 217,000 each	Welded Welded
	30, 31, 32, 33 34 and 35 36 and 37 38 and 39	5,000 each 50,000 each	Bolted Welded
	38 and 39	15.000 each	Welded

## **YOL 266 PAGE 653**

#### CRUDE UNITS NO. 1 AND NO. 2

- Crude furnaces (2)
- Exchangers heat Pumps and controls Crude Tower A Crude Tower B
- Condenser box and coils
- Receivers and caustic scrubbers

#### THERMAL CRACKING UNIT

- Cracking furnace Fractionating tower b.
- Reaction chamber
- Flash tower Stabilizing tower.
- Exchangers heat
- Condenser box and coils Pumps and controls
- Hot oil pump

#### ASPHALT UNIT

- Asphalt furnace Vacuum tower Oxidizing tower Exchangers heat Pumps and controls

#### POLYMERIZATION UNIT 6.

- Poly furnace Compressor Poly tower

- Exchanger heat 2 Reactors

#### BUILDINGS 7.

- Boiler house--contains two 35,000 lbs. per
  - hour steam boilers Boiler house--contains two 10,000 lbs. per
  - hour steam boilers
- d.
- Pump and control house Transfer pump house Linde treating house Office building and addition Warshouse building
- Ethyl house

- Ethyl nouse
  Hot oil pump house
  Asphalt control and pump house
  Truck loading racks (2)
  Employees change house and addition
  No. 2 Unit control house

Ethyl unloading siding Double track orude unloading and product

loading siding

Together with all of the Lake Superior Refining Co.'s right, title and interest in and to any and all other buildings, structures, plants, facilities, fixtures and improvements and all other machinery, tools, apparatus, equipment, and all other personal property of whatsoever kind or nature now or hereafter located on the lands above described or located elsewhere and used or useful in connection with the conduct and operation of said refinery and pipe lines located on such lands and also any and all real property, rights, grants, liberties, estates, rights of way, servitudes, easements, franchises, privileges, immunities, consents, permits, patents and patent rights, licenses, leasing agreements, switch track agreements and lessing contracts now owned by Lake Superior Refining Co.

Subject to the rights of Lakehead Pipe Line Company, Inc. regarding some of the above captioned real estate to repurchase lands conveyed by Lakehead Pipe Line Company, Inc. upon discontinuance of the use of said lands for an oil refinery or allied purposes.

IN WITNESS WHEREOF, the said grantor has caused these presents to be signed by Russell Marks, its President, and attested by J. A. O'Connor, Jr., its Secretary, at El Dorado, Arkansas, and its corporate seal to be hereunto affixed this the 10th day of April, A. D. 1961, to be effective for all purposes as of 7:00 o'clock A. M. on January 1, 1961.

LAKE SUPERIOR REPINING CO.

Secretary.

-8-

VOL 200 ME 655

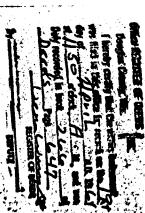
CABRAMAN NO STATE ( RS. OF UNITED )

A. D. 1961, Russell Marks, President, and J. A. O'Connor, Jr., Secretary of the above named corporation, to me known to be the persons who executed the fore-oing instrument, and to me known to be such President and Secretary of said corporation, and acknowledged that they executed the foregoing instrument as such officers as the deed of said corporation, by its authority.

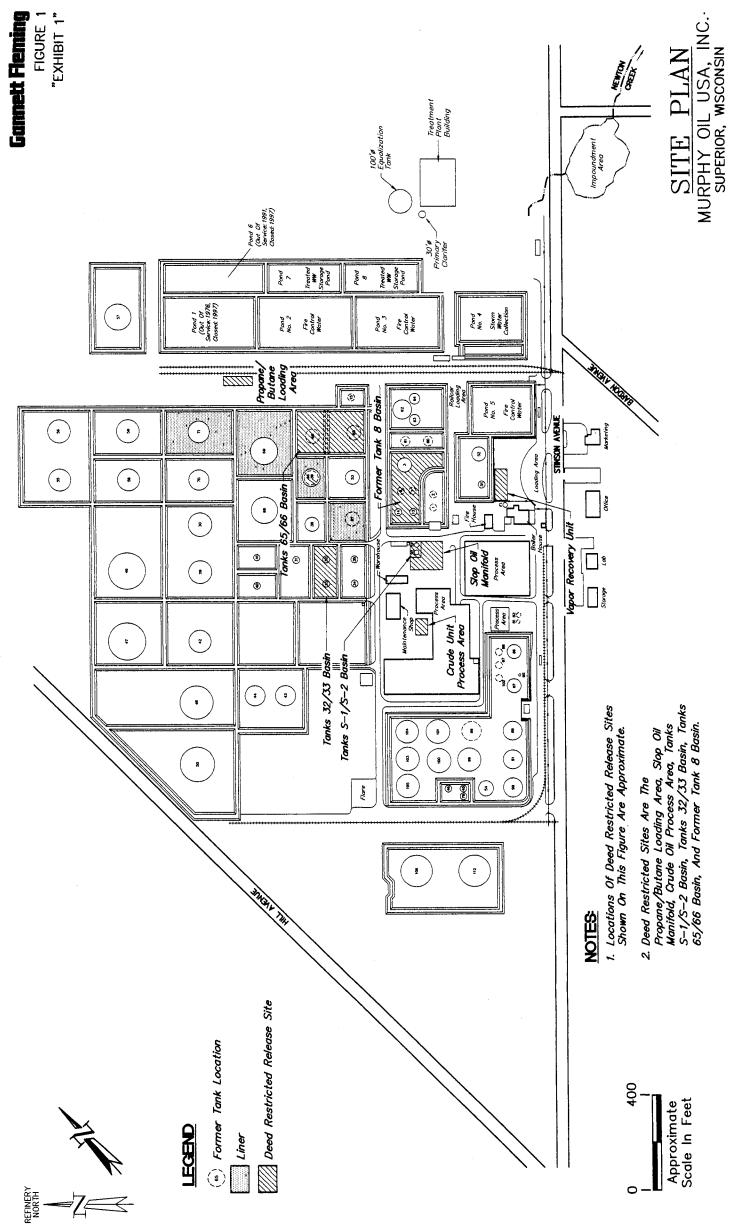
William J Wynne Notary Public Union County, Arkansas My Commission expires Sept. 1, 1962.

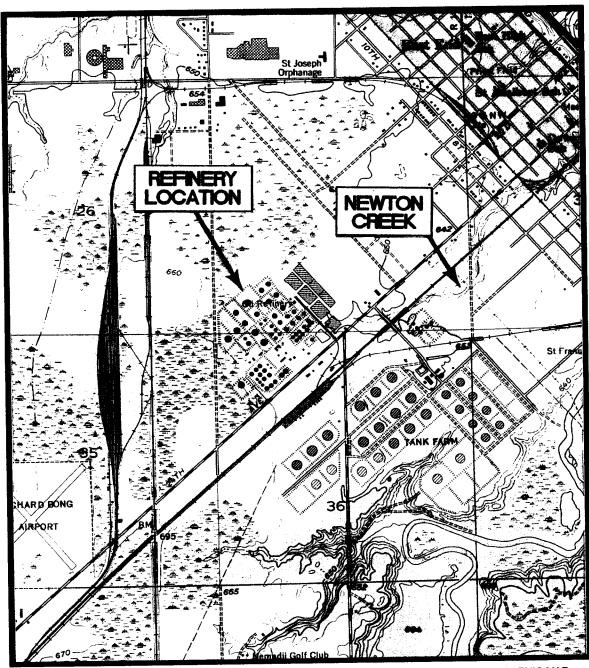
This instrument was drafted by Paul L. Witkin, Attorney.

-.4-



DOUGLAS CTY REG UP DEEDS SUUTH 1/2 5EU. *1*003 10:19 CC Prepared By: Douglas County Clerk's Office, R.W. Earh 29 June 1992 \* 63. ر <del>د</del>ي و 4 to \*\*\*\* 10 rpy on usa the į Ť Ĭ 1 ٳٙ TOTAL P.03





SCALE: 1 INCH = 2000 FEET CONTOUR INTERVAL = 10 FEET



7.5 MIN TOPOGRAPHIC MAP SUPERIOR, WISCONSIN 1954 PHOTOREVISED 1983



**LOCATION MAP** 

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

#### **Gannett Heming**

# MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 1

ANALYTICAL RESULTS (mg/kg) FOR SOIL SAMPLES FROM CRUDE UNIT PROCESS AREA

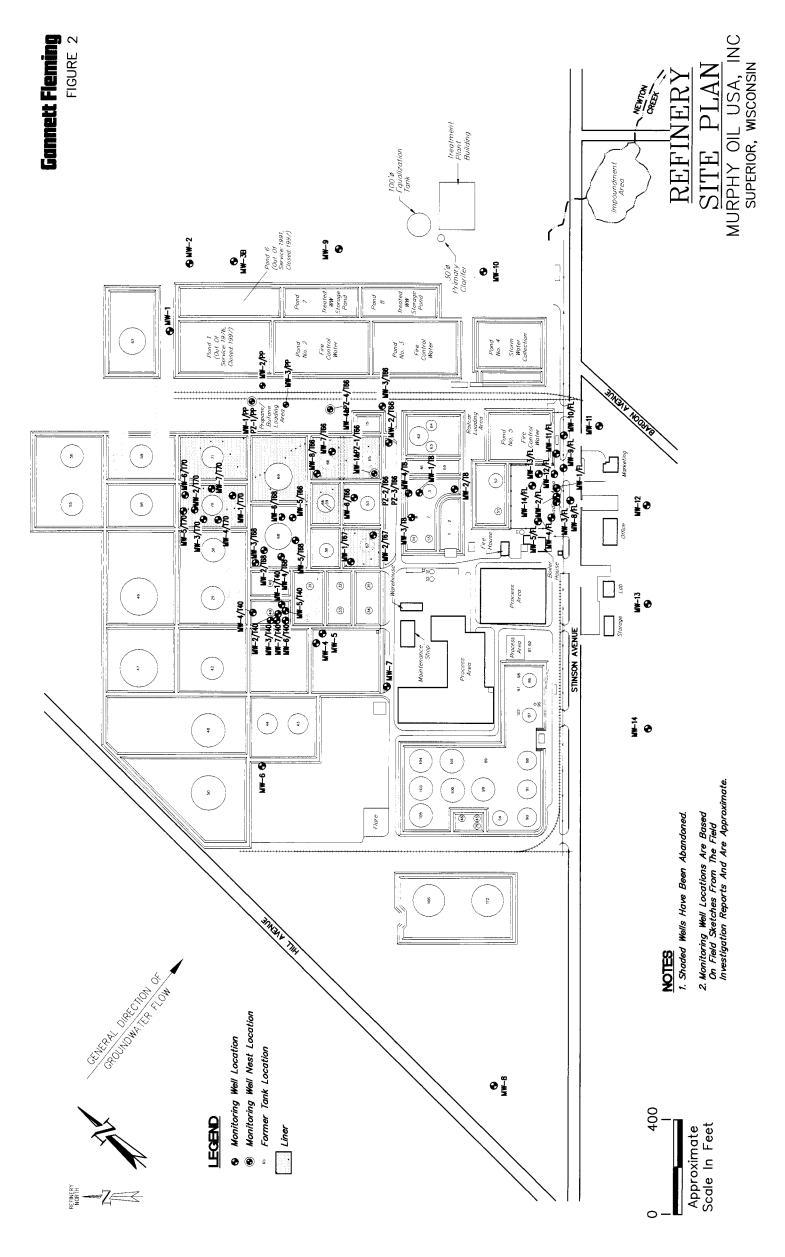
		Sample L.D.	and Depth		NR 720	NR 746 Direct Contact
Parameters	BCU-1		BCU-2		RCL	Standards in Top 4 Feet
	1-1.5 ft.	4.5-5 ft.	1-1.5	4-4.5	RCL	of Soil Column
DRO	1,500	20.2	230	7.85	250	NS
Benzene	0.366	0.098	0.066	< 0.033	0.0055	1.1
Ethylbenzene	0.274	0.04	0.047	0.047	2.9	4.6
Toluene	< 0.255	0.058	0.131	0.18	1.5	38
Total Xylenes	0.547	0.082	0.121	0.12	4.1	42
Trimethylbenzenes	< 0.510	<0.064	< 0.064	<0.066	NS	NS
1,2,4-Trimethylbenzenes	< 0.255	< 0.032	< 0.032	< 0.033	NS	83
1,3,5-Trimethylbenzenes	< 0.255	< 0.032	< 0.032	< 0.033	NS	11
MTBE	< 0.255	< 0.032	< 0.032	< 0.033	NS	NS
Detected Polycyclic Aroma	atic Hydrocai	rbons				
Benzo(b)fluoranthene	< 0.0031	< 0.0031	0.00349	< 0.0031	NS	NS
Fluorene	< 0.0033	< 0.0033	0.0511	< 0.0033	NS	NS
Phenanthrene	0.779	<0.0028	0.135	< 0.0028	NS	NS
Naphthalene	0.344	< 0.0015	0.0334	< 0.0015	NS	2.7
1-methyl naphthalene	1.39	<0.0048	0.111	< 0.0048	NS	NS
2-methyl naphthalene	2.12	<0.0055	0.169	< 0.0055	NS	NS

#### NOTES:

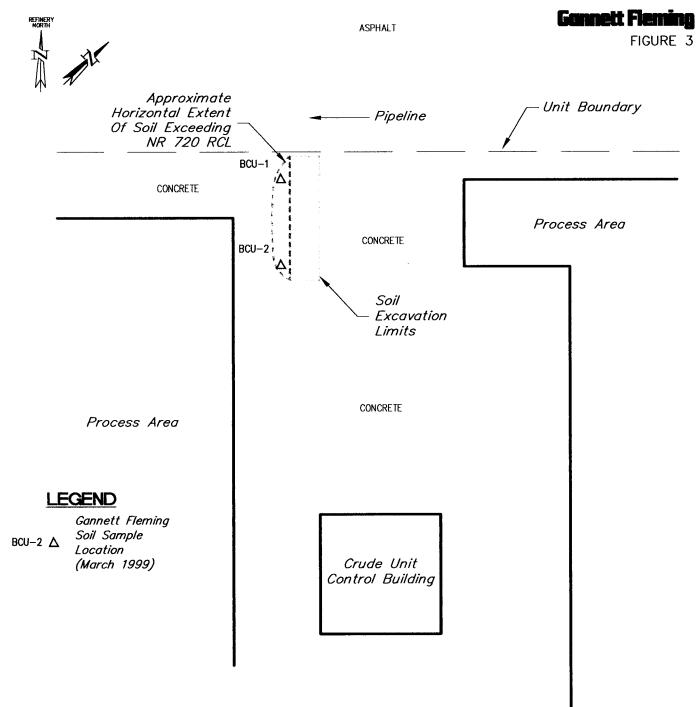
Samples collected on March 11, 1999. Results reported on a dry-weight basis.

Results in bold exceed applicable NR 720 RCL.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.



ノ



#### NOTE:

Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.



# SOIL SAMPLE LOCATIONS AT CRUDE UNIT PROCESS AREA

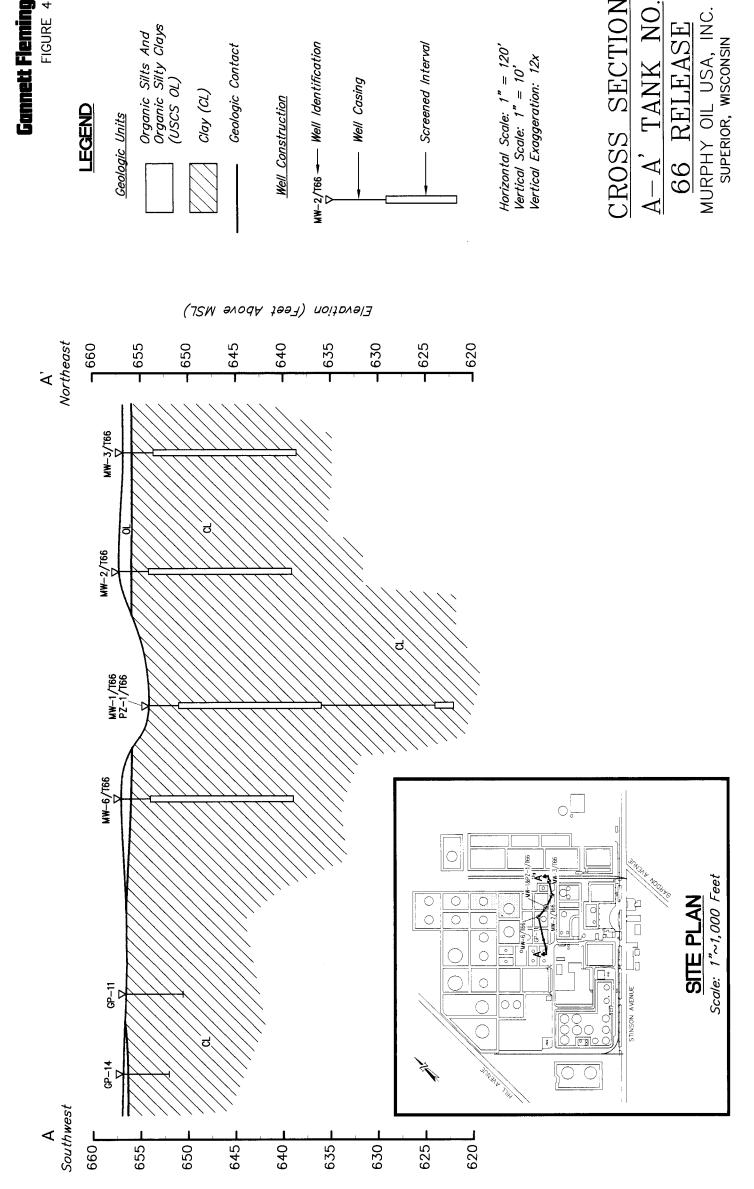
MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

LEGEND

Organic Silts And Organic Silty Clays (USCS OL)

Geologic Contact

Clay (CL)



Elevation (Feet Above MSL)

Screened Interval

Well Casing

#### MURPHY OIL USA, INC. 2400 STINSON AVENUE SUPERIOR, WISCONSIN CRUDE PROCESS UNIT RELEASE SITE

BRRTS No.: 02-16-222638

I hereby state that the legal description of the Murphy Oil refinery in Superior as stated in the deed dated January 1, 1961, and included as Attachment A to this GIS Registry submittal is complete and accurate for all the property associated with the crude process unit release site that has soil that exceeded NR 720 standards at the time that site closure was requested.

Printed Name

Signature

Refinery Managor
Title

Date

Document Number NOTICE OF RESTRICTIONS ON PROPERTY

DOCUMENT # 777115

Recorded
SEP. 30,2004 AT 01:30PM
KATHY F. HANSON
DOUGLAS COUNTY RECORDER
SUPERIOR, WI 54880-2769
Fee Amount: \$111.00

Legal Description of the Property:

All the property described in Douglas County Warranty Deed No. 453215 and filed as Volume 266, Pages 647 through 655, on April 19, 1961 (copy of deed attached).

(legal description)

STATE OF WISCONSIN )
) ss.

COUNTY OF DOUGLAS )

Return to:
David Podratz
Refinery Manager
2400 Stinson Ave.,
Superior, WI 54880

111/04

Parcel Identification Number 01-801-03339-00

- Section 1. Murphy Oil USA, Inc. is the owner of the above-described property, and within this property lie the following seven areas where the discharge of petroleum products has occurred:
  - (a) Crude Unit Process Area [Wisconsin Department of Natural Resources (WDNR) Activity Number: 02-16-222638],
  - (b) Tanks S-1 and S-2 (WDNR Activity Number: 02-16-222670),
  - (c) Slop Oil Manifold (WDNR Activity Number: 02-16-246715),
  - (d) Tanks 65/66 Basin [WDNR Activity Number: 02-16-222617 and Wisconsin Department of Commerce ("Commerce") Number: 54880-0456-07-L],
  - (e) Propane/Butane Loading Area (WDNR Activity Number: 02-16-222628 and Commerce Number: 54880-0456-07-X), and
  - (f) Tanks 32/33 Basin (WDNR Activity Number: 02-16-222721 and Commerce Number: 54880-0456-07-S).
  - (g) Vapor Recovery Unit (WDNR Activity Number: 02-16-242301 and Commerce Number: 54880-0456-07-Q).

Exhibit 1, which is attached hereto and incorporated by reference, and labeled "Figure 1," shows the above described property and the locations of the Crude Unit Process Area, Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, and Tanks 32/33 Basin. More detail regarding the location and layout for each of the six areas described above can be found in Exhibit 2, which is attached hereto and incorporated by reference, and labeled "Figure 2" for the Crude Unit Process Area; Exhibit 3, which is attached hereto and incorporated by reference, and labeled "Figure 3" for Tanks S-1 and S-2;

Exhibit 4, which is attached hereto and incorporated by reference, and labeled "Figure 4" for the Slop Oil Manifold; Exhibit 5, which is attached hereto and incorporated by reference, and labeled "Figure 5" for the Tanks 65/66 Basin; Exhibit 6, which is attached hereto and incorporated by reference, and labeled "Figure 6" for Propane/Butane Loading Area; Exhibit 7, which is attached hereto and incorporated by reference, and labeled "Figure 7" for Tanks 32/33 Basin, and Exhibit 8, which is attached hereto and incorporated by reference, and labeled "Figure 8" for the Vapor Recovery Unit.

- Petroleum discharges have occurred at this property. Soils with concentrations of petroleum-related compounds above applicable Wisconsin Administrative Code NR 720.09 residual contaminant levels exist on this property at the Crude Unit Process Area, Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, Tanks 32/33 Basin, and the Vapor Recovery Unit. Soils with concentrations of petroleum-related compounds above applicable Wisconsin Administrative Code NR 746.06 direct-contact levels exist on this property at Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, Tanks 32/33 Basin, and the Vapor Recovery Unit.
- Section 3. It is the desire and intention of the property owner to impose restrictions on the designated portions of the property that will not make it necessary to conduct additional soil remediation activities at the above-described six areas at the present time. The owner hereby declares that all such designated portions of the property described herein are held and shall be held, conveyed or encumbered, leased, rented, used, occupied, and improved subject to the following limitations and/or restrictions described for each of the six areas noted above.

#### **Crude Unit Process Area**

That the location of the Crude Unit Process Area (WDNR #02-16-222638) has been surveyed and identified as follows:

All that part of Block 18, West 27<sup>th</sup> Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most easterly Corner of Block 18, West 27<sup>th</sup> Street, Townsite of Superior; thence South 48 degrees 50 minutes 03 seconds West, along the southeasterly line of said Block 18, a distance of 56.46 feet; thence North 41 degrees 09 minutes 57 seconds West, a distance of 6.35 feet to the Point of Beginning; thence South 46 degrees 05 minutes 39 seconds West, a distance of 23.58 feet; thence North 42 degrees 02 minutes 43 seconds West, 35.27 feet; thence North 49 degrees 34 minutes 13 seconds East, a distance of 24.60 feet; thence South 40 degrees 19 minutes 17 seconds East, a distance of 33.82 feet to the Point of Beginning.

Exhibit 9, which is attached hereto and incorporated herein by reference, and labeled "Sheet 3 of 15," is a survey drawing showing the Crude Unit Process Area with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 residual contaminant levels (RCLs) that were in effect on the signature date of this document remains at this location at depths from approximately 1 foot to at least 5 feet below ground surface. The compounds that remain with concentrations above their applicable RCLs include diesel range organic (DRO) compounds, with concentrations as high as 1,500 milligrams per kilogram (mg/kg) and benzene, with concentrations as high as 0.366 mg/kg.

It has been shown that these residual contaminant levels are protective of the environment (groundwater) with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations that meet applicable regulatory requirements. The property owner shall maintain the integrity of the surface barrier cap in this area.

The concrete surface barrier cap shall be maintained in the Crude Unit Process Area shown on Exhibit 9 (Sheet 3 of 15), unless another barrier with an infiltration rate of  $10^{-7}$  cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of  $10^{-7}$  cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc., as required by section NR 724.13(2), Wis. Adm. Code (1997).

#### Tanks S-1 and S-2 Basin

That the location of the Tanks S-1 and S-2 Basin (WDNR #02-16-222670) has been surveyed and identified as follows:

All that part of Block 17, West 27<sup>th</sup> Street, Townsite of Superior, Douglas County, Wisconsin described as follows:

Commencing at the most southerly corner of Block 17, West 27<sup>th</sup> Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the southeasterly line of said Block 17, a distance of 141.61 feet; thence North 41 degrees 09 minutes 57 seconds West, a distance of 37.37 feet to the Point of Beginning; thence North 39 degrees 54 minutes 44 seconds West, a distance of 38.44 feet; thence North 47 degrees 09 minutes 10 seconds East, a distance of 39.69 feet; thence North 33 degrees 46 minutes 23 seconds West, a distance of 1.00 feet; thence North 47 degrees 13 minutes 41 seconds East, a distance of 13.45 feet; thence South 41 degrees 51 minutes 06 seconds East, a distance of 39.85 feet; thence South 47 degrees 39 minutes 25 seconds West, a distance of 54.58 feet to the Point of Beginning.

Exhibit 10, which is attached hereto and incorporated herein by reference, and labeled "Sheet 6 of 15," is a survey drawing showing the Tanks S-1 and S-2 basin with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of this document remains at this location to a depth of at least 0.5 feet bgs. The compounds that remain with concentrations above their applicable RCLs include DRO, with concentrations as high as 43,200 mg/kg; benzene, with concentrations as high as 6.362 mg/kg; ethylbenzene, with concentrations as high as 20.915 mg/kg; and total xylenes, with concentrations as high as 64.48 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene, ethylbenzene, total xylenes, trimethylbenzenes, and naphthalene also remains within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations that meet applicable regulatory requirements. The property owner shall maintain the integrity of the surface barrier cap in this area.

The concrete surface barrier cap shall be maintained in the Tanks S-1 and S-2 basin shown on Exhibit 10 (Sheet 6 of 15), unless another barrier with an infiltration rate of 10<sup>-7</sup> cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of 10<sup>-7</sup> cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

#### Slop Oil Manifold Area

That the location of the Slop Oil Manifold Area (WDNR #02-16-246715) has been surveyed and identified as follows:

That part of Block 15, West 27<sup>th</sup> Street and that part of vacated Thompson Avenue (23<sup>rd</sup> Avenue East), Townsite of Superior, Douglas County, Wisconsin described as follows:

Commencing at the most westerly Corner of Block 15, West 27<sup>th</sup> Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the northwesterly line of said Block 15, a distance of 120.16 feet to the Point of Beginning; thence North 40 degrees 37 minutes 53 seconds West, a distance of 50.00 feet; thence North 48 degrees 50 minutes 03 seconds East,

along the centerline of said vacated Thompson Avenue, a distance of 32.93 feet; thence South 40 degrees 26 minutes 04 seconds West, a distance of 39.48 feet; thence South 50 degrees 06 minutes 04 seconds West, a distance of 7.37 feet; thence 40 degrees 33 minutes 29 seconds East, a distance of 5.33 feet; thence North 49 degrees 26 minutes 31 seconds East, a distance of 29.52 feet; thence South 40 degrees 37 minutes 53 seconds East, a distance of 22.11 feet; thence South 49 degrees 22 minutes 07 seconds West, a distance of 54.94 feet; thence North 40 degrees 37 minutes 53 seconds West, a distance of 16.56 feet to the Point of Beginning.

Exhibit 11, which is attached hereto and incorporated herein by reference, and labeled "Sheet 4 of 15," is a survey drawing showing the Slop Oil Manifold Area with its legal description.

Structural impediments existing at the time of soil remediation made it impractical to remove all contaminated soil in this area of the property. If the structural impediments in this area are removed, the property owner shall conduct an investigation to determine the degree and extent of petroleum contamination. To the extent that contamination is found at that time, the Wisconsin Department of Natural Resources shall be notified immediately, and the contamination shall be remediated in accordance with applicable statutes and rules.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of this document remains at this location to a depth of at least 1.5 feet bgs. The compounds that remain with concentrations above their applicable RCLs include DRO, with concentrations as high as 11,600 mg/kg; gasoline range organic compounds, with concentrations as high as 830 mg/kg; benzene, with concentrations as high as 2.252 mg/kg; ethylbenzene, with concentrations as high as 48.615 mg/kg; toluene, with concentrations as high as 25.399 mg/kg; and total xylenes, with concentrations as high as 185.035 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene, ethylbenzene, total xylenes, trimethylbenzenes, and naphthalene also remains within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of a 60-mil, high-density polyethylene (HDPE) liner, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations protective of the environment and human health. The property owner shall maintain the integrity of the surface barrier cap in this area.

The HDPE surface barrier cap shall be maintained in the Slop Oil Manifold Area shown on Exhibit 11 (Sheet 4 of 15), unless another barrier with an infiltration rate of 10<sup>-7</sup> cm/sec or less is installed and maintained in its place. The existing HDPE cap and any replacement barrier with an infiltration rate of 10<sup>-7</sup> cm/sec or less shall be maintained in the above described area in

compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

#### Tanks 65/66 Basin

That the location of the Tanks 65/66 Basin (WDNR #02-16-222617) has been surveyed and identified as follows:

All those parts of Block 17, 18, 19 & 20, West 25<sup>th</sup> Street, together with those parts of vacated Becker Avenue and 25<sup>th</sup> Street, all in the Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most westerly Corner of Block 17, West 25<sup>th</sup> Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the northwesterly line of sad Block 17, a distance of 73.65 feet to the Point of Beginning; thence South 37 degrees 38 minutes 12 seconds East, a distance of 134.76 feet; thence South 52 degrees 21 minutes 48 seconds West, a distance of 155.00 feet; thence North 37 degrees 38 minutes 12 seconds West, a distance of 270.00 feet; thence North 52 degrees 21 minutes 48 seconds East, a distance of 155.00 feet; thence South 37 degrees 38 minutes 12 seconds East, a distance of 135.24 feet to the Point of Beginning.

Exhibit 12, which is attached hereto and incorporated herein by reference, and labeled "Sheet 7 of 15," is a survey drawing showing the Tanks 65/66 Basin with its legal description.

Residual petroleum-contaminated soils have been identified within the Tanks 65/66 Basin at concentrations that exceed the NR 746.06 direct-contact standards. The residual contaminated soils are believed to be present throughout the tank basin. Commerce has agreed that enforcement of the "**limited access**" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be handled in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07 and WDNR BRRTS #02-16-222617).

This restriction requires "**limited access**" to the site, which includes (at a minimum) the area outlined with a thicker black line, as the "*Approximate Extent of Soil Exceeding NR 720 And/Or NR 746 Standards*" on attached Exhibit 13 (labeled "Figure 9"). To comply with the requirement of "**limited access**," gated fencing of an appropriate height that encompasses the refinery site and that restricts access to the Tanks 65/66 Basin shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the Tanks 65/66 Basin must be knowledgeable of the soil contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 14 (labeled "Figure 10") shows the post-excavation soil sample locations collected from the Tank 65 basin. Exhibit 15, which is attached hereto and incorporated herein by reference, and labeled "Tables 1 through 5," present the results for the soil samples collected during this Tanks 65/66 Basin investigation. Exhibits 13 and 14 (labeled "Figures 9 and 10") show the sample locations.

#### Propane/Butane Loading Area

That the location of the Propane/Butane Loading Area (WDNR #02-16-222628) has been surveyed and identified as follows:

All that part of Block 19, West 25<sup>th</sup> Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most northerly Corner of Block 19, West 25<sup>th</sup> Street, Townsite of Superior; thence South 41 degrees 10 minutes 13 seconds East, along the northeasterly line of said Block 19, a distance of 143.20 feet; thence South 48 degrees 49 minutes 47 seconds West, a distance of 29.73 feet to the Point of Beginning; thence South 40 degrees 55 minutes 55 seconds East, a distance of 58.00 feet; thence South 49 degrees 04 minutes 05 seconds West, a distance of 39.00 feet; thence North 40 degrees 55 minutes 55 seconds West, a distance of 58.00 feet; thence North 49 degrees 04 minutes 05 seconds East, a distance of 39.00 feet to the Point of Beginning.

Exhibit 16, which is attached hereto and incorporated herein by reference, and labeled "Sheet 8 of 15," is a survey drawing of the Propane/Butane Loading Area with its legal description.

Residual petroleum-contaminated soils have been identified within the Propane/Butane Loading Area at concentrations that exceed the NR 746.06 direct-contact standards. Residual contaminated soil was identified in soil boring GP-25. Commerce has agreed that enforcement of the "limited access" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be handled in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07-L and WDNR BRRTS #02-16-222628).

This restriction requires "limited access" to the site. To comply with the requirement of "limited access," gated fencing of an appropriate height that encompasses the refinery site and that restricts access to the Propane/Butane Loading Area shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the Propane/Butane Loading Area must be knowledgeable of the soil contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 17, which is attached hereto and incorporated herein by reference, and labeled "Figure 11," shows the locations of all soil samples collected during the investigation of the Propane/Butane Loading Area and the approximate extent of soil exceeding NR 720.09 and/or NR 746 standards. Exhibit 18 (labeled Table 6) presents the results for the soil samples collected during this investigation.

#### Tanks 32/33 Basin

That the location of the Tanks 32/33 Basin (WDNR #02-16-222721) has been surveyed and identified as follows:

Those parts of Blocks 17 and 19, West 27<sup>th</sup> Street together with those parts of vacated Becker Avenue and West 27<sup>th</sup> Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most northerly Corner of Block 17, West 27<sup>th</sup> Street, Townsite of Superior; thence South 48 degrees 50 minutes 03 seconds West along the northwesterly line of said Block 17, a distance of 71.10 feet to the Point of Beginning; thence South 41 degrees 10 minutes 13 seconds East, a distance of 25.00 feet; thence South 48 degrees 50 minutes 03 seconds West along a line 25.00 feet distant, measured at right angles to and parallel with the northwesterly line of said Block 17, a distance of 217.00 feet, thence North 41 degrees 10 minutes 13 seconds West along a line 8.00 feet distant, measured at right angles to and parallel with the centerline of vacated West 27<sup>th</sup> Street, a distance of 117.00 feet; thence North 48 degrees 50 minute 03 seconds East, a distance of 217.00 feet; thence South 41 degrees 10 minutes 13 seconds East, a distance of 92.00 feet to the Point of Beginning.

Exhibit 19, which is attached hereto and incorporated herein by reference, and labeled "Sheet 13 of 15," is a survey drawing showing the Tanks 32/33 Basin with its legal description.

Residual petroleum-contaminated soils have been identified within the Tanks 32/33 Basin at concentrations that exceed the NR 746.06 direct-contact standards. Residual contaminated soil was identified in soil borings B32-1 through B32-4, B33-1, and B33-3. Commerce has agreed that enforcement of the "**limited access**" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be dealt with in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07-S and WDNR BRRTS #02-16-222721).

This restriction requires "limited access" to the site. To comply with the requirement of "limited access," gated fencing of an appropriate height that encompasses the refinery site that restricts access to the Tanks 32/33 Basin shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the site must be knowledgeable of the contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 7, which is attached hereto and incorporated herein by reference, and labeled "Figure 7," shows the locations of all soil samples collected during the investigation of the Tanks 32/33 Basin and the approximate extent of soil exceeding NR 720.09 and/or NR 746.06 standards. Exhibit 20, which is attached hereto and incorporated herein by reference, and labeled "Table 7," presents the results for the soil samples collected during this investigation.

#### Vapor Recovery Unit

That the location of the Vapor Recovery Unit (COMM #54880-0456-07-Q and WDNR #02-16-242301) has been surveyed and identified as follows:

All that part of Block 16, West 25<sup>th</sup> Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most easterly corner of Block 16, West 25<sup>th</sup> Street, Townsite of Superior; thence North 41 degrees 10 minutes 13 seconds West, along the northeasterly line of said Block 16, a distance of 152.22 feet; thence South 48 degrees 49 minutes 47 seconds West, a distance of 134.72 feet to the Point of Beginning; thence South 47 degrees 54 minutes 34 seconds West, a distance of 12.50 feet; thence North 41 degrees 27 minutes 49 seconds West, a distance of 26.50 feet; thence North 48 degrees 32 minutes 11 seconds East, a distance of 12.50 feet; thence South 41 degrees 27 minutes 49 seconds East, a distance of 26.37 feet to the Point of Beginning.

Exhibit 21, which is attached hereto and incorporated herein by reference, and labeled "Sheet 5 of 15," is a survey drawing showing the Vapor Recovery unit with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of his document remains at this location to a depth of at least 2 feet bgs. The compounds that remain with concentrations above their applicable RCLs include gasoline range organics, with concentrations as high as 2,700 mg/kg; benzene, with concentrations as high as 4.0 mg/kg; ethylbenzene, with concentrations as high as 3.8 mg/kg; toluene, with concentrations as high as 4.4 mg/kg; and total xylenes, with concentrations as high as 131 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene and total xylenes also remain within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations protective of the environment and human health.

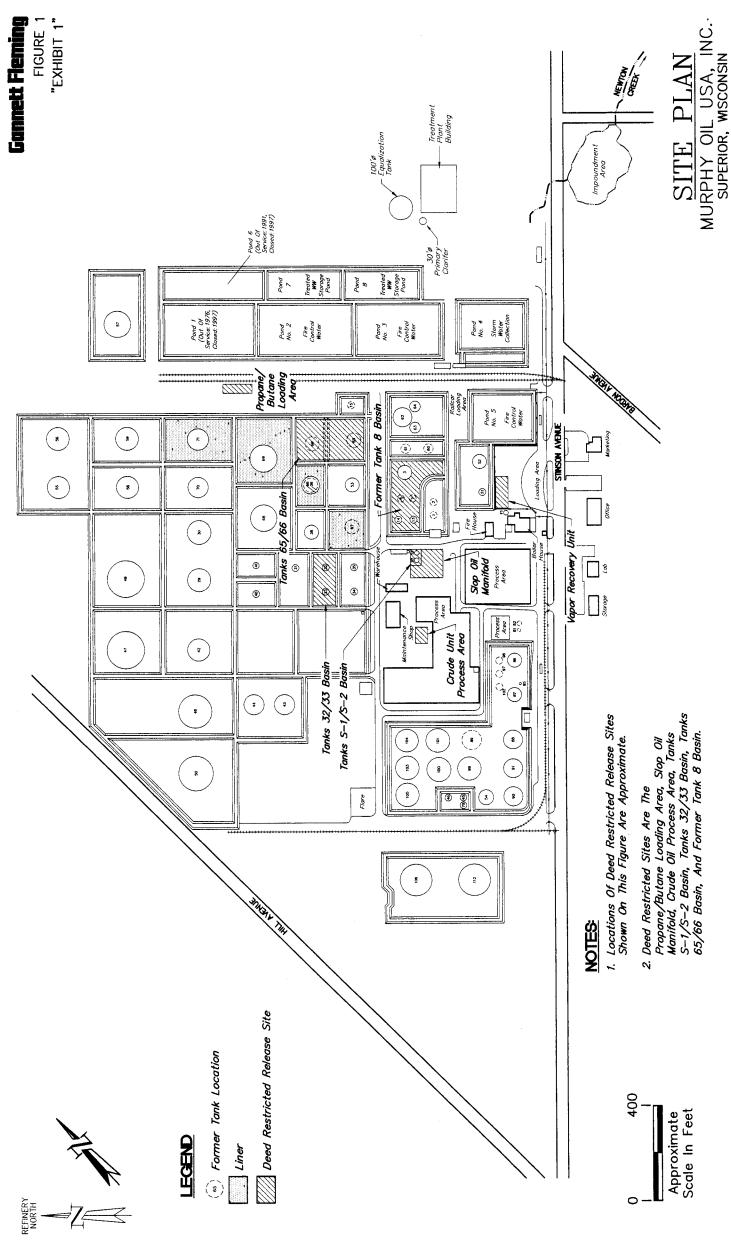
The concrete surface barrier cap shall be maintained in the Vapor Recovery Unit shown on Exhibit 21 (Sheet 5 of 15), unless another barrier with an infiltration rate of  $10^{-7}$  cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of  $10^{-7}$  cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated June 2004 that was submitted to the Wisconsin Department of Natural Resources on June 15, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or Wisconsin Department of Commerce (as applicable), or its successor, issue a determination that the restrictions set forth in the covenant are no longer required. That property owner shall provide any and all necessary information to the applicable Department in order for the applicable Department to be able to make a

determination. Upon receipt of such a request, the applicable Department shall determine whether or not the restrictions contained herein can be extinguished. Conditions under which a restriction may be extinguished will be determined in accordance with the standards, rules, and laws in effect at the time of such request. If the applicable Department determines that the restrictions can be extinguished, an affidavit, with a copy of the applicable Department's written determination, may be recorded to give notice that this restriction or portions of this restriction are no longer binding. Any restriction placed upon this property shall not be extinguished without the applicable Department's written determination.

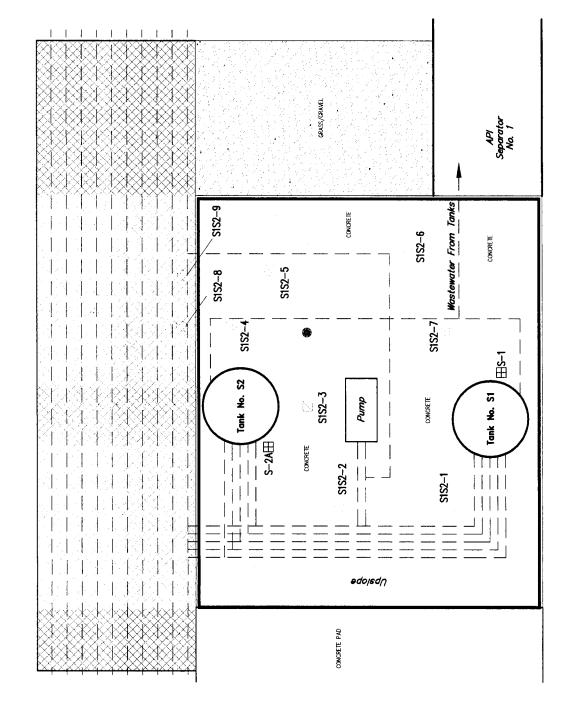
IN WITNESS WHEREOF, the owner of the property has executed this document, this day of Sept. 2004.
By signing this document, [he/she] acknowledges that [he/she] is duly authorized to sign this document on behalf of Murphy Oil USA, Inc.  Signature:  Printed Name: David J. Podratz
Title: Refinery Manager
Subscribed and sworn to before me this 14 day of sept 2004.  Signature:
Notary Public, State of Wisconsin
My commission expires on $9/07/08$
This document was drafted by:
Atty Richard J. Lewandowski DeWitt Ross & Stevens, S.C. 2 E. Mifflin St., Suite 600 Madison, WI 53703

Tel: 608-255-8891



24565WDY \$06t0t





ASPHALT ROAD

# **Connett Flemin**

FIGURE 3 "EXHIBIT 3"

# LEGEND

A 4 re

Area Covered With Pea Gravel Over 60 MIL HDPE Liner

Area Covered With Concrete Slab With 6" High Curb

S-2A Twin Ports Testing Post-Excavation

Soil Sample Location

Soll Sample Location (September/October 1997) SIS2-1 Gannett Fleming Soil Sample Location @ 0.5' Depth (June 1999)

Concrete Sump

Aboveground Piping

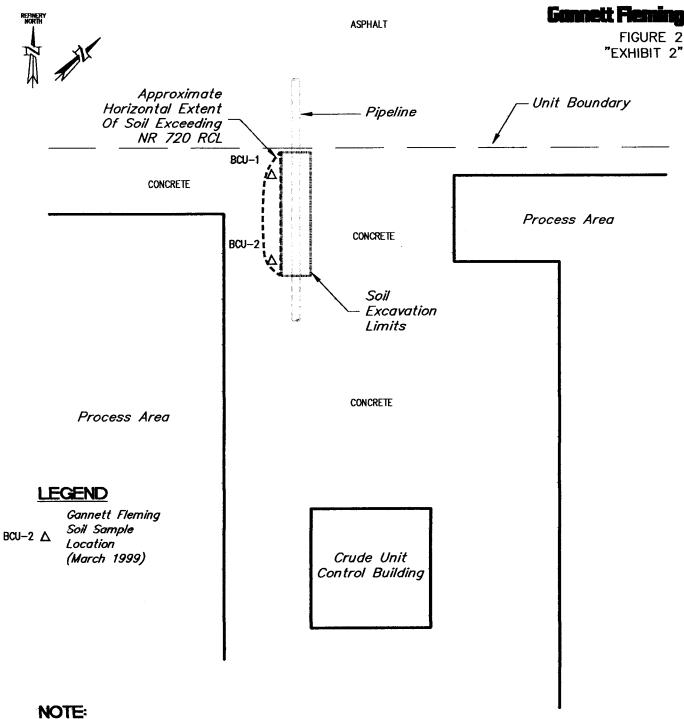
# NOTE

The Location Of Tanks, Piping, And Soil Samples Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

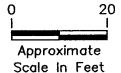
# SOIL SAMPLE LOCATIONS AT

SLOP OIL TANKS
S1 AND S2
MURPHY OIL USA, INC.
SUPERIOR, WSCONSIN

Approximate Scale In Feet

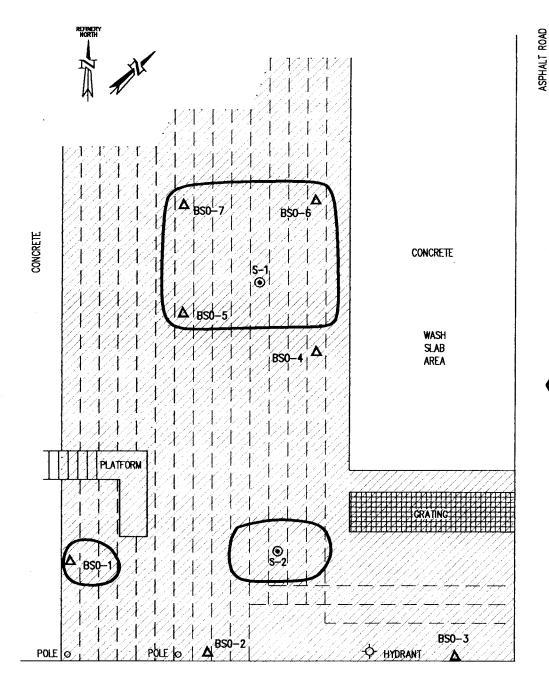


Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

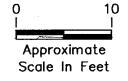


# SOIL SAMPLE

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN



ASPHALT ROAD



## SITE PLAN: SLOP OIL MANIFOLD AREA MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

**Connett Fleming** 

FIGURE 4
"EXHIBIT 4"

## **LEGEND**

Area Covered With
60 MIL HDPE Liner
Following The
Collection Of Soil
Samples And
Excavation Of Soil

S-1 Twin Ports Soil
Sample Location
(December 1999)

BSO-5

A Gannett Fleming Soil
Sample Location
(August 1999)

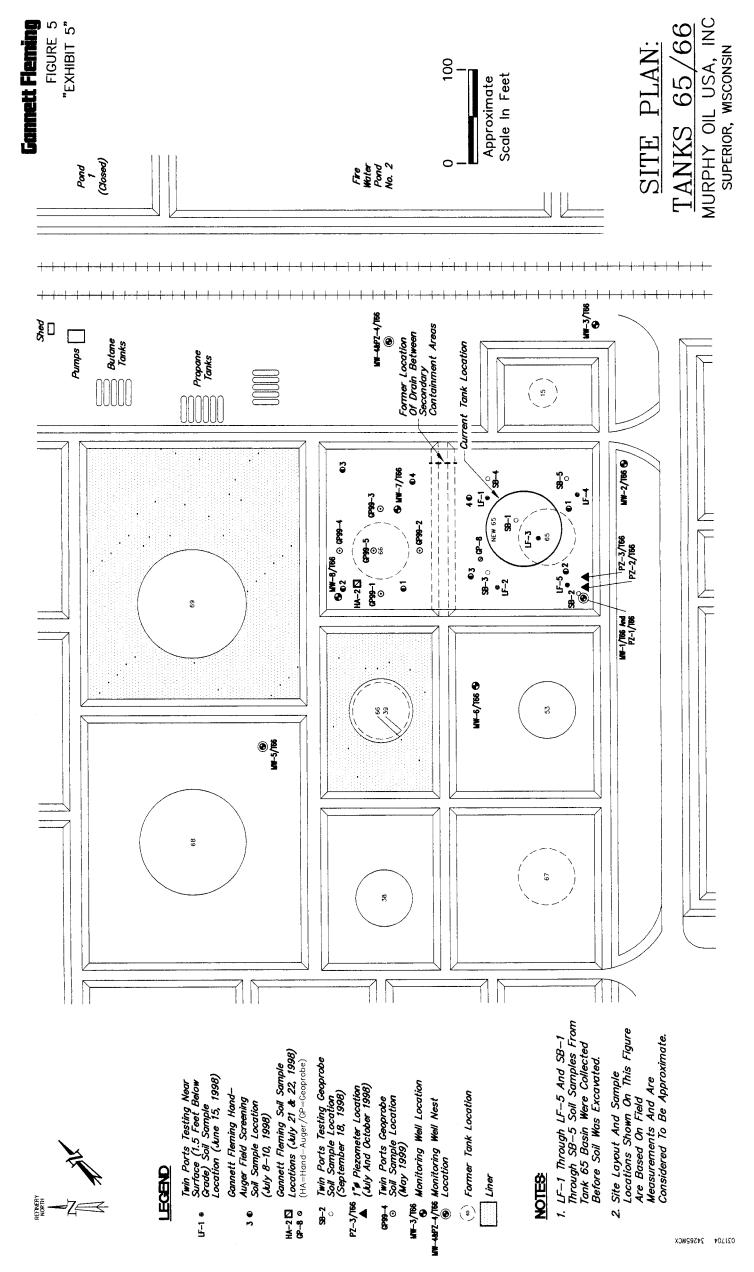
– — – Aboveground Piping

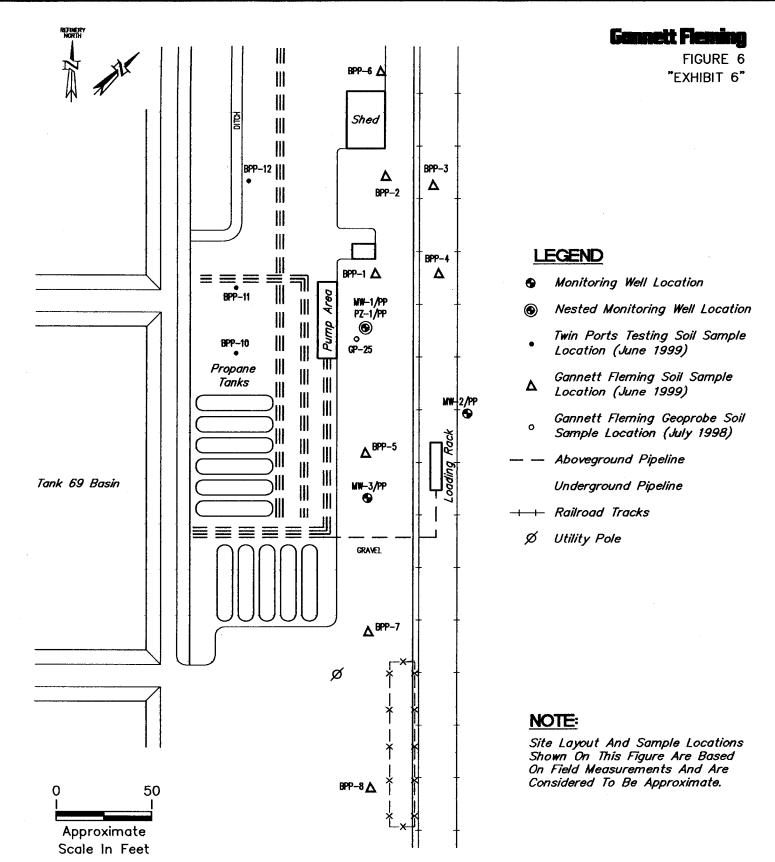
Approximate Extent Of Soils Exceeding NR 720/746 Standards

## NOTES:

- 1. Site Layout And
  Sample Locations
  Shown On This Figure
  Are Based On Field
  Measurements And Are
  Considered To Be
  Approximate.
- 2. This Figure Is Based On A Twin Ports Testing Site Plan Of The Slop Oil Area Showing The Extent Of The 12/99 Excavation.
- 3. Piping Shown On Figure Is Approximately 3 Feet Above Grade.
- 4. Not Shown On Figure Is
  An Upper Piping
  Manifold Approximately
  20 Feet Above Grade
  In The Eastern And
  Southeastern Areas Of
  Site.

ASPHALT ROAD





## SAMPLE LOCATIONS AT PROPANE/BUTANE LOADING AREA

MURPHY OIL USA, INC SUPERIOR, WISCONSIN

TANK No. 38 BASIN

M₩-1/T31

TANK No. 31 BASIN

1 KM ZHBO

NORTH

SOIL BERM

•

832-3 **△** B32-4 TANK No. 32 (No. 2 Fuel Oil Release) SOIL BERM 832-2 **♦ ₽**22-1 B33-1 ▲ **△** 833-2 PUMPS TANK No. 33 (No. 2 Fuel OII Release) DRIVEWAY STAIRWAY B33-3 **△** B33-4 4 Monitoring Well Location (June 1999) დ. Scale in Feet Approximate EGEND

TANK Nos. 34/35 BASIN

1. Not All Site Structures Shown On Figure.

NOTES:

832-4 Gannett Fleming

A Geoprobe Soil Sample

Location (December 1998)

•

- Aboveground Piping Underground Piping

1

2. Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

Approximate Horizontal Extent Of Soil Exceeding NR 720 And/or NR 746 Standards

AND SITE PLAN: സ ഡ TANK NOS.

tt Flemins

FIGURE 7 "EXHIBIT 7"

> MURPHY OIL USA, INC. SUPERIOR, MISCONSIN

> > 031704 34265WDZ

## **Gannett Flemin**

FIGURE 8 "EXHIBIT 8"

Extent Of Soll Excavation (July 2000)

Extent Of Soil Excavation (December 1999) Twin Ports Soil Sample Location (July 2000) S-2 🕸

Twin Ports Soil Sample Location (December 1999) S-2

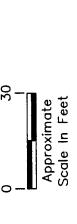
Source Of October 1999 Release (200-Gallans Of Gasoline) Twin Ports Field Screening Soil Sample Location (October 1999) ネ

HA-70

--- Aboveground Piping

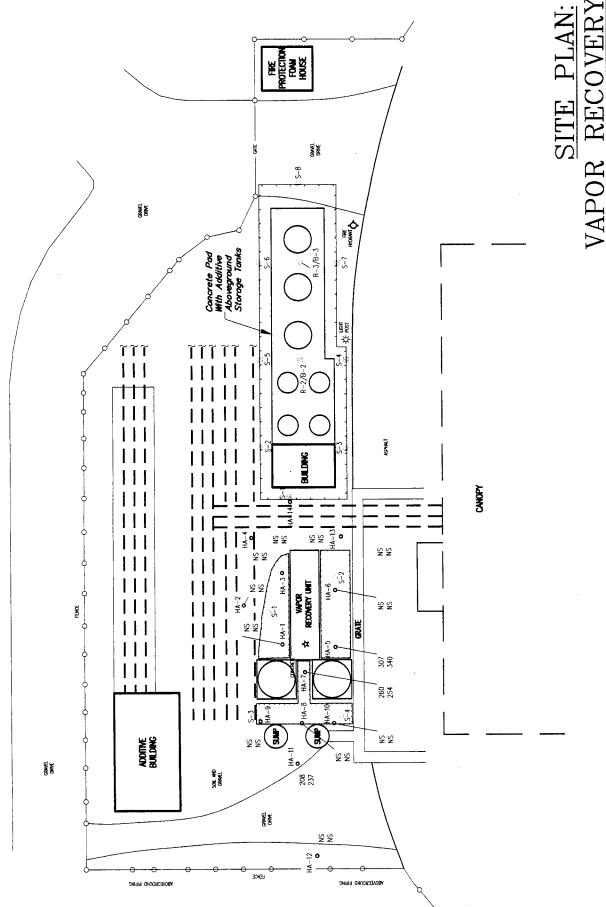
307 = PID Reading At 1 Foot Depth 340 = PID Reading At 2 Foot Depth NS = Not Sampled

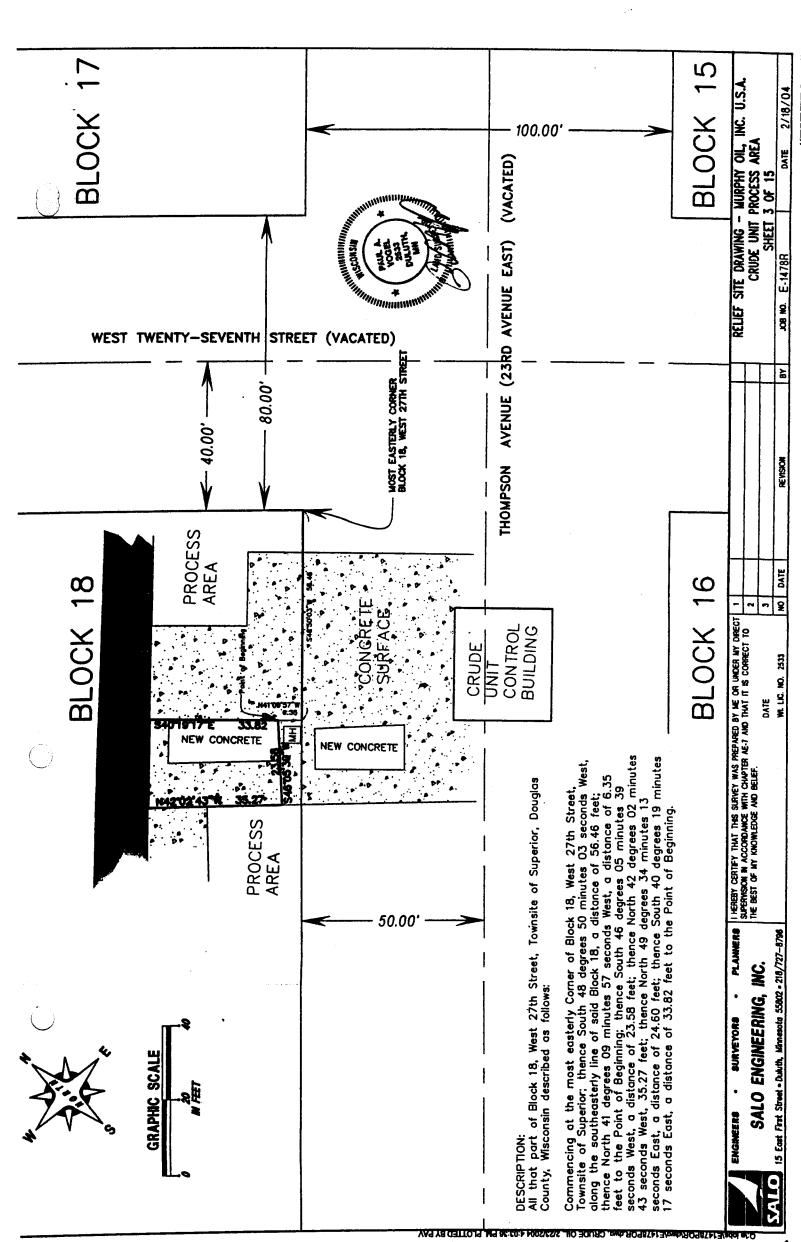
- 1. Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are To Be Considered Approximate.
- 2. If Should Be Noted That Due To The Presence Of A Significant Amount Of Aboveground And Underground Utilities, As Well As Other Structures in This Area, There is Extremely Limited Access.
- 3. Sample Locations Based On Site Plan Prepared By Twin Ports Testing.
- 4. Concrete Pad With Additive Aboveground Storage Tanks Installed In September 2000.



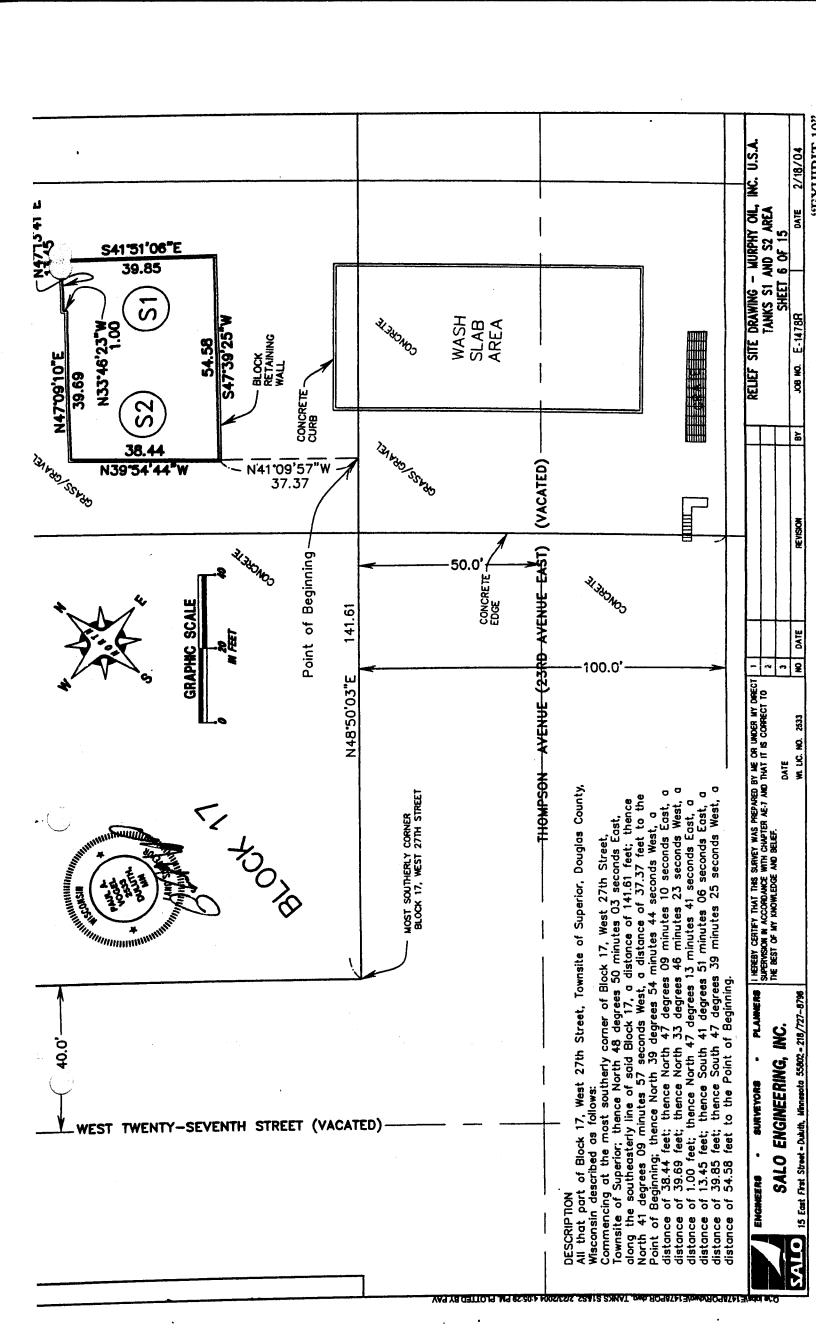
MURPHY OIL USA, INC.

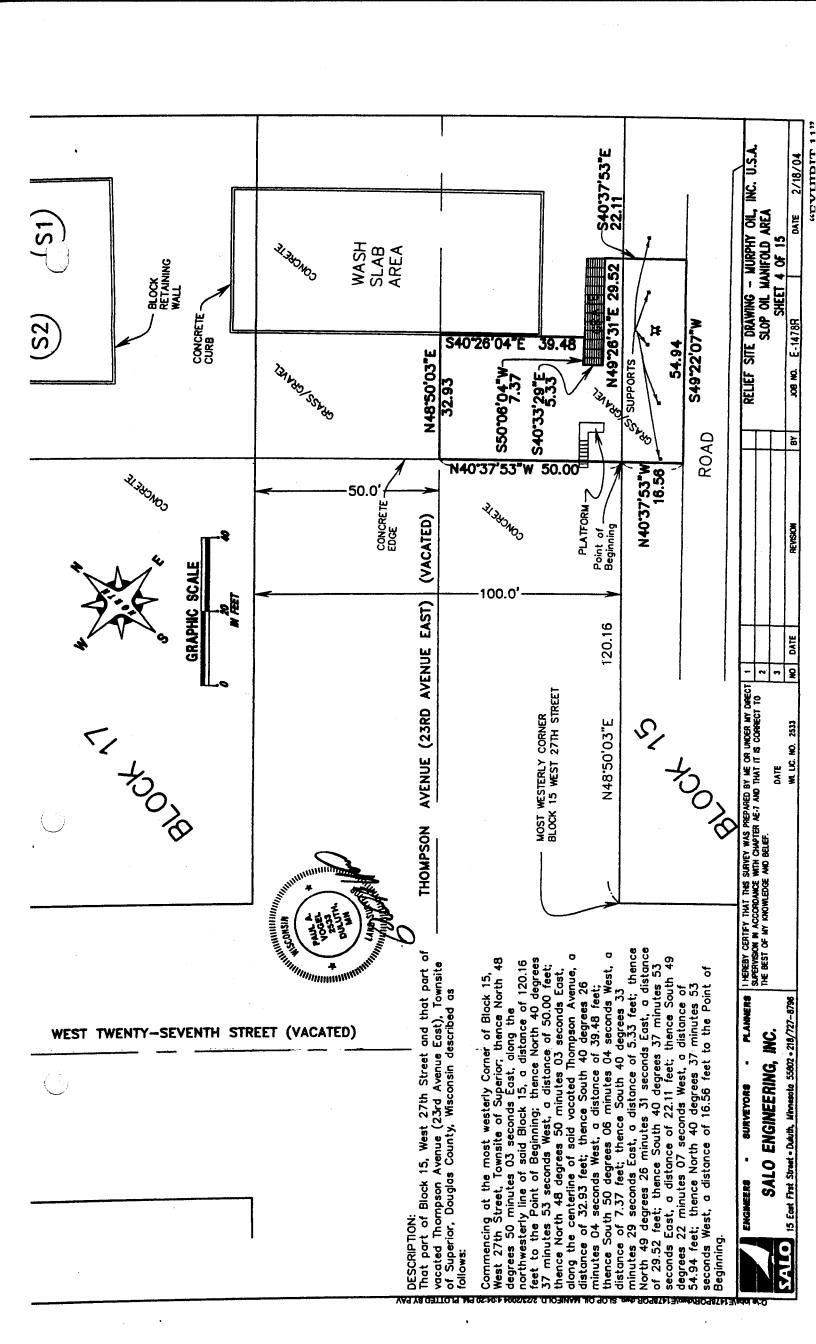
SUPERIOR, MISCONSIN

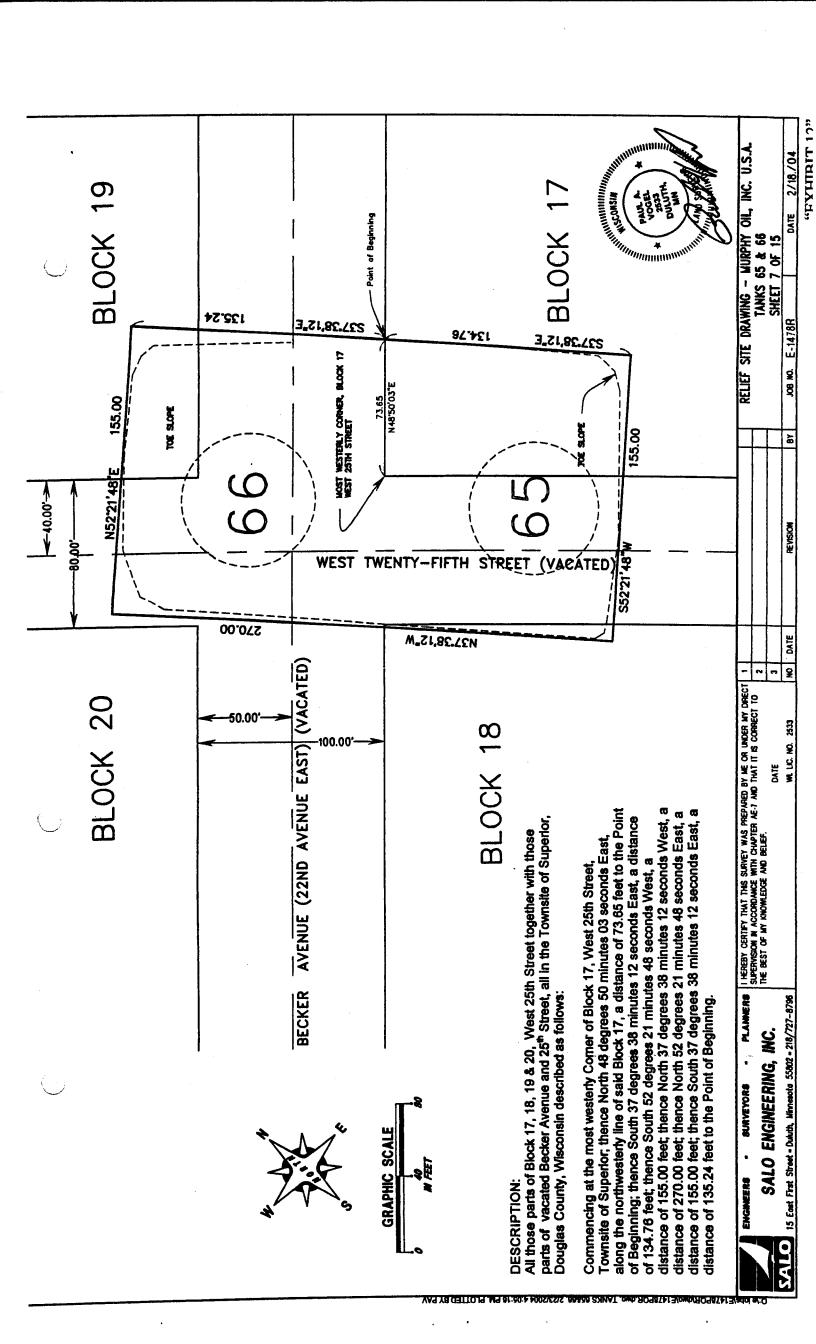


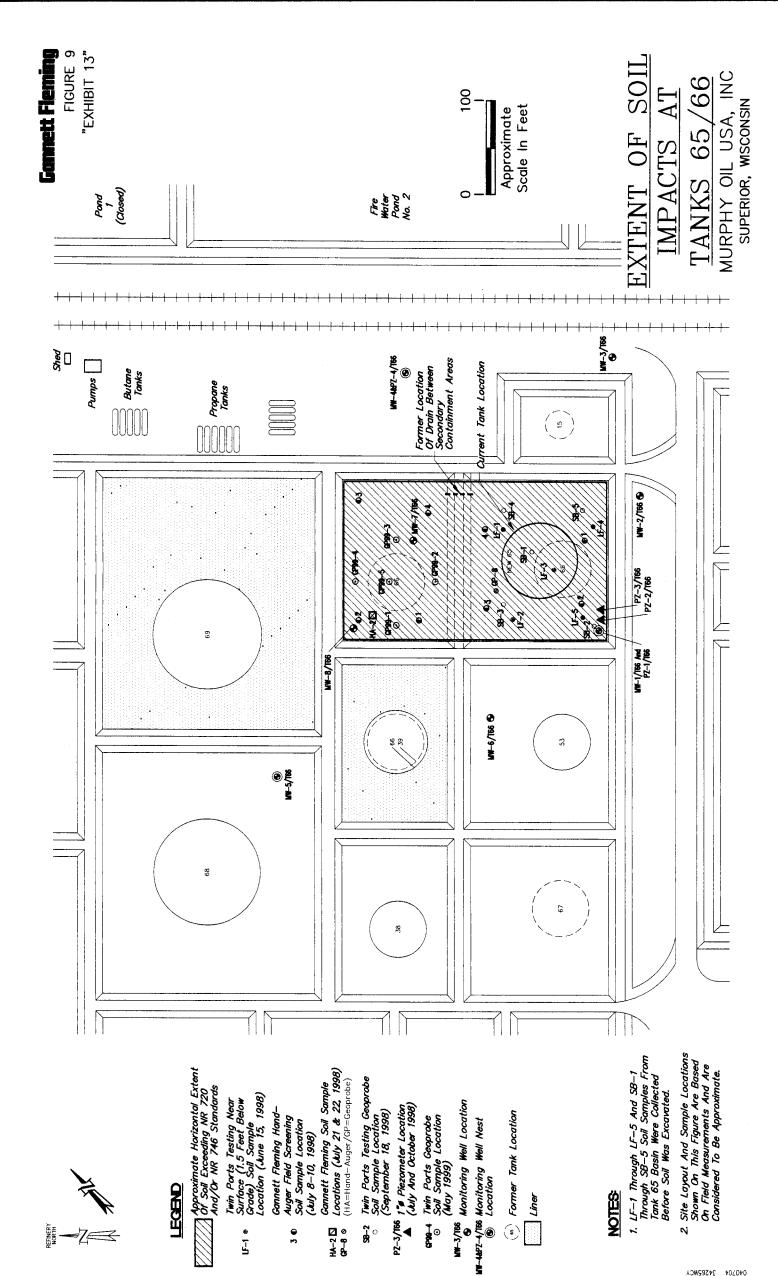


Ê









**7** °

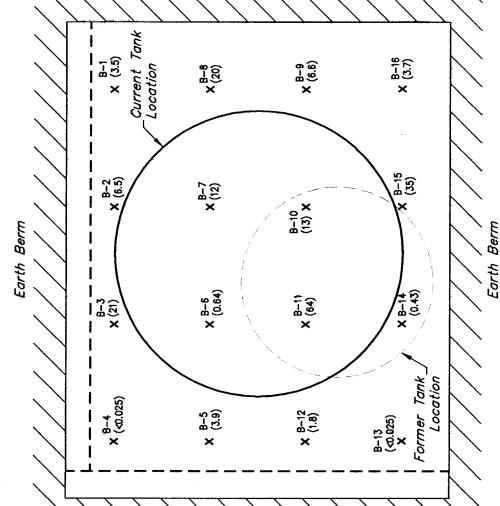
¥-2⊠ 8-8-0

F-1 \*

**₹**⊙

040104 24265WCY

FIGURE 10 "EXHIBIT 14"



Earth Berm

Approximately 0.5 Feet Below Grade Following The Removal

Of Approximately 2 Feet Of Soil From The Base Of The

Basin.

1. Soil Samples Were Collected

NOTES

on 10/20/98 At

Benzene Concentration (mg/kg) Sample Location With Gannett Fleming Soil

8-5 (3.9)

LEGEND

Aboveground Piping

I

шләд ұзы

## POST-EXCAVATION SOIL SAMPLE

Considered To Be Approximate.

Dimensions Shown On This Figure Are Based On Field Measurements And Are

2. Soil Sample And Piping

Locations And Basin

BASIN 65 OF TANK MURPHY OIL USA, INC. FROM BASE LOCATIONS

SUPERIOR, WISCONSIN

040704: FIG# REV. 031704 34265WAA

Scale In Feet Approximate

## TABLE 1

## PRE-EXCAVATION SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN JUNE 19, 1998

Sample ID & Sample Depth (ft)	GRO	Benzene	Ethylbenzene	MTBE	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
LF-1 (1.5)	5,900	150	43	95	89	100	240	430
LF-2 (1.5)	3,000	1.7	10	<1.0	5.6	82	180	171
LF-3 (1.5')	4,200	55	42	26	180	48	150	390
LF-4 (1.5')	14	0.27	0.042	<0.025	0.037	0.037	<0.25	0.091
LF-5 (1.5')	10,000	120	220	20	200	150	450	1,140
NR 720 RCL	250	0.0055	2.9	SN	1.5	SN	SN	4.1

## NOTES:

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

## TABLE 2

## SOIL SAMPLING RESULTS (mg/kg) TANKS 65 AND 66 BASINS - JULY 21 AND 22, 1998

	Sample ID and Sample I	Depth (feet)
Parameter	GP-8	
	1-1.5	4.5-5
DRO	110	130
GRO	1,000	740
Benzene	13	19
Ethylbenzene	20	15
Toluene	42	67
Xylenes	156	110
МТВЕ	<0.45	<0.45
1,2,4-TMB	66	48
1,3,5-TMB	27	20
Ethylene dibromide (EDB)	<0.35	<0.35
Lead	11.6	NA
Detected Polycyclic Aromatic Hydrocar	bons	
Acenaphthene	<0.048	<0.048
Acenaphthylene	<0.051	0.34
Anthracene	<0.023	<0.023
Benzo(a)anthracene	<0.0020	<0.0020
Benzo(a)pyrene	<0.0015	<0.0015
Benzo(b)fluoranthene	<0.0015	<0.0015
Benzo(k)fluoranthene	<0.0015	<0.0015
Fluoranthene	<0.0049	0.032
Fluorene	<0.0086	<0.0086
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094
Naphthalene	1.6	0.93
l-Methyl Naphthalene	1.0	0.47
2-Methyl Naphthalene	2.3	1.1
Phenanthrene	0.045	<0.0035
Pyrene	0.20	0.052

## **Gannett Fleming**

Table 2 Continued . . .

	Sample ID and Sa	mple Depth (feet)
Parameter	НА	-2
	1-1.5	4.5-5
DRO	350	, 990
GRO	1,700	850
Benzene	1.3	<0.38
Ethylbenzene	<0.11	<0.22
Toluene	1.8	<0.22
Xylenes	6.3	<0.68
MTBE	<0.090	<0.18
1,2,4-TMB	22	20
1,3,5-TMB	5.7	7.9
Ethylene dibromide (EDB)	<0.28	<0.14
Lead	11.4	NA
Detected Polycyclic Aromatic Hydrocar	bons	
Acenaphthene	<0.048	<0.048
Acenaphthylene	<0.051	<0.051
Anthracene	<0.023	<0.023
Benzo(a)anthracene	<0.0020	<0.0020
Benzo(a)pyrene	<0.0015	<0.0015
Benzo(b)fluoranthene	<0.0015	<0.0015
Benzo(k)fluoranthene	<0.0015	<0.0015
Fluoranthene	<0.0049	<0.0049
Fluorene	<0.0086	0.76
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094
Naphthalene	<0.031	3.2
1-Methyl Naphthalene	<0.047	6.9
2-Methyl Naphthalene	0.076	11
Phenanthrene	<0.0035	0.72
Pyrene	0.018	<0.0062

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis. Results in bold exceed applicable NR 720 RCL.

Only detected polycyclic aromatic hydrocarbons (PAHs) included in table.

NA = Not analyzed.

## TABLE 3

## PRE-EXCAVATION GEOPROBE SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN SEPTEMBER 18, 1998

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	MTBE	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-1 (0-2')	24	41	\$	46	11	35	77
SB-1 (2-4')	28	77	2.1	83	16	48	114
SB-1 (4-6')	6	3.5	0.27	15	2	6.4	16.9
SB-1 (6-8')	9.7	8.1	99'0	7.2	4.9	15	38
SB-1 (20-22')	0.49	0.75	<0.025	2.7	90.0	.2	2.82
SB-2 (0-2')	23	21	1.7	69	14	44	102
SB-2 (2-4')	12	4.7	.15	24	2.7	8.7	23.8
SB-2 (4-6')	13	2.8	<0.05	20	1.3	4.2	14.3
SB-2 (6-8')	8.9	2.4	<0.05	16	1	3.5	11.9
SB-2 (8-10')	8.4	3.2	0.083	17	1.4	4.7	15.5
SB-3 (0-2')	25	19	1.9	69	13	39	95
SB-3 (2-4')	21	19	1.2	89	13	41	94
SB-3 (4-6')	15	4.7	0.18	72	2.4	7.5	22.8
SB-3 (6-8')	11	4	0.19	23	2	6.4	19.8
SB-3 (8-10')	8.6	3.7	0.17	21	1.7	5.5	18.3
NR 720 RCL	0.0055	2.9	SN	1.5	SN	SN	4.1

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	MTBE	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-4 (0-2')	22	31	2.2	94	23	68	154
SB-4 (2-4')	10	8.2	0.71	29	5.6	17	42
SB-4 (4-6')	14	22	1.9	19	17	52	114
SB-4 (6-8')	7.9	7.1	0.33	26	5	15	36
SB-4 (8-10')	6.1	2	0.087	12	76.	3.2	10.5
SB-5 (0-2')	21	33	2.1	09	28	92	178
SB-5 (2-4')	6.1	7	1.2	12	2.9	9.3	20.7
SB-5 (4-6')	6.3	1.8	0.43	6	1.1	3.8	10.4
SB-5 (6-8')	3.4	1.3	0.28	6.3	88.0	3	7.8
SB- 5 (8-10')	2.5	1.2	0.21	5.7	0.75	2.6	7.1
Field Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Method Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NR 720 RCL	0.0055	2.9	SN	1.5	SN	SN	4.1

## NOTES

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc. Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis. Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level. NS = No standard.

= No standard.

## TABLE 4

## POST-EXCAVATION SOIL SAMPLING RESULTS FORMER TANK 65 BASIN (mg/kg) OCTOBER 20, 1998

Petroleum Product in Soil Screening Levels NS NS RS: 8.5 4.6 4.6 4.6 94	f				Sample I.D.					NR 720	NR 746 Residual	NR 746 Direct Contact
B-1         B-2         B-3         B-4         B-5         B-6         B-7         B-8         Soli Screening Levels           11.4         13.1         13.7         11.9         10.5         13.6	rarameter									RCL	Petroleum Product in	Standards in Upper 4
11.4   13.1   13.7   11.9   10.5   13.6   11.4   9.94   500   NS     490   980   1,600   3.8   490   210   1,300   1,800   2.50   NS     26ne   7.1   26   21   4.0.025   2.4   2.3   27   30   2.9   4.6     8.3   56   140   0.064   0.6   3.4   6.3   59   1.5   4.5     Index   39   143   253   0.1   13.3   11.4   126   178   4.1   42     Index   41   42   42   42   42   42     Index   42   43   44   44   44   44   44     Index   44   45   44   44   44     Index   45   45   45   45   45   45   45     Index   45   45   45   45   45   45   45     Index   45   45   45   45   45   45     Index   45   45   45   45   45     Index   45   45   45   45     Index   45   45   45   45     Index   45   45   45     Index   45   45     Index   45   45     Index   45   45     Index   45     I		B-1	B-2	В-3	7	B-5	B-6	B.7	# #		Soil Screening Levels	Feet of Soil
490         980         1,600         3.8         490         210         1,300         1,800         250           zene         7.1         22         48         <0.025	Lead	11.4	13.1	13.7	11.9	10.5	13.6	11.4	966	800	SN	
zene         7.1         22         48         <0.025	GRO	490	086	1,600	3.8	490		1.300	1.800	250	SN	
7.1         22         48         <0.025	Benzene	3.5	9.5	21	<0.025			23	20	0.0055	8.5	
Note	Ethylbenzene	7.1	77	48	<0.025		2.3	27	8	2.9	4.6	4.6
ylbenzenes         39         143         253         0,1         13.3         11.4         126         178         4.1           sylbenzenes         34.8         94         156         0.196         25.9         16.7         90         138         NS           <1.2         <1.2         <1.2         <2.5         <0.025         <0.25         7.1         7.2         NS	Toluene	8.3	98	140	0.064		3.4	ß	83	1.5	38	
1ylberizenes 34.8 94 156 0.196 25.9 16.7 90 138 NS	Total Xylenes	39	143	253	0.1	13.3	11.4	126	178	4.1	42	4
<1.2 <1.2 <2.5 <0.025 <0.25 <0.25 <1.1 72 NS	Trimethylbenzenes	34.8	94	156	0.196	25.9	16.7	06	138	SN	8	76
	MTBE	<1.2	<1.2	42.5	<0.025		<0.25	7.1	7.2	SN	SN	

			<b>1</b>	Sample I.D.					NR 720	NR 746 Residual	NR 746 Direct Contact
Parameter				ı					RCL	Petroleum Product in	Standards in Unner 4
	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16		Soil Screening Levels	Feet of Soil
Lead	8.18	13.6	15.3	81	9.81	11.4	12.6	9.45	ŝ	R	
GRO	096	1,500	3,700	350	6.7	77	2.700	190	250		
Bonzene	9.9	13	75	1.8	<0.025	0.43	3.5	3.7	0 00 0	Y 00	
Ethylbenzene	16	29	85	8.7	<0.025	000	3		000	A A	7 /
Toluene	6.6	62	760	18	<0.025	-	160	0.46	13	1.0	
Total Xylenes	LL	123	400	47	0.081	333	293	4.1	1	CV	
Trimethylbenzenes	<i>L</i> 9	98	250	31.2	0.34	5.6	120	13.2	52	76	
MTBE	4.9	<2.5	11	<0.25	<0.025	<0.25	7.6	0.77	ž	N.S.	

All samples collected at a depth of 0.5 feet below grade.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

M:/CLERICAL/PROJECTS/34200/34265.003/ablos/DFK\[3T34265-003\_009.xds]Table 4

TABLE 5

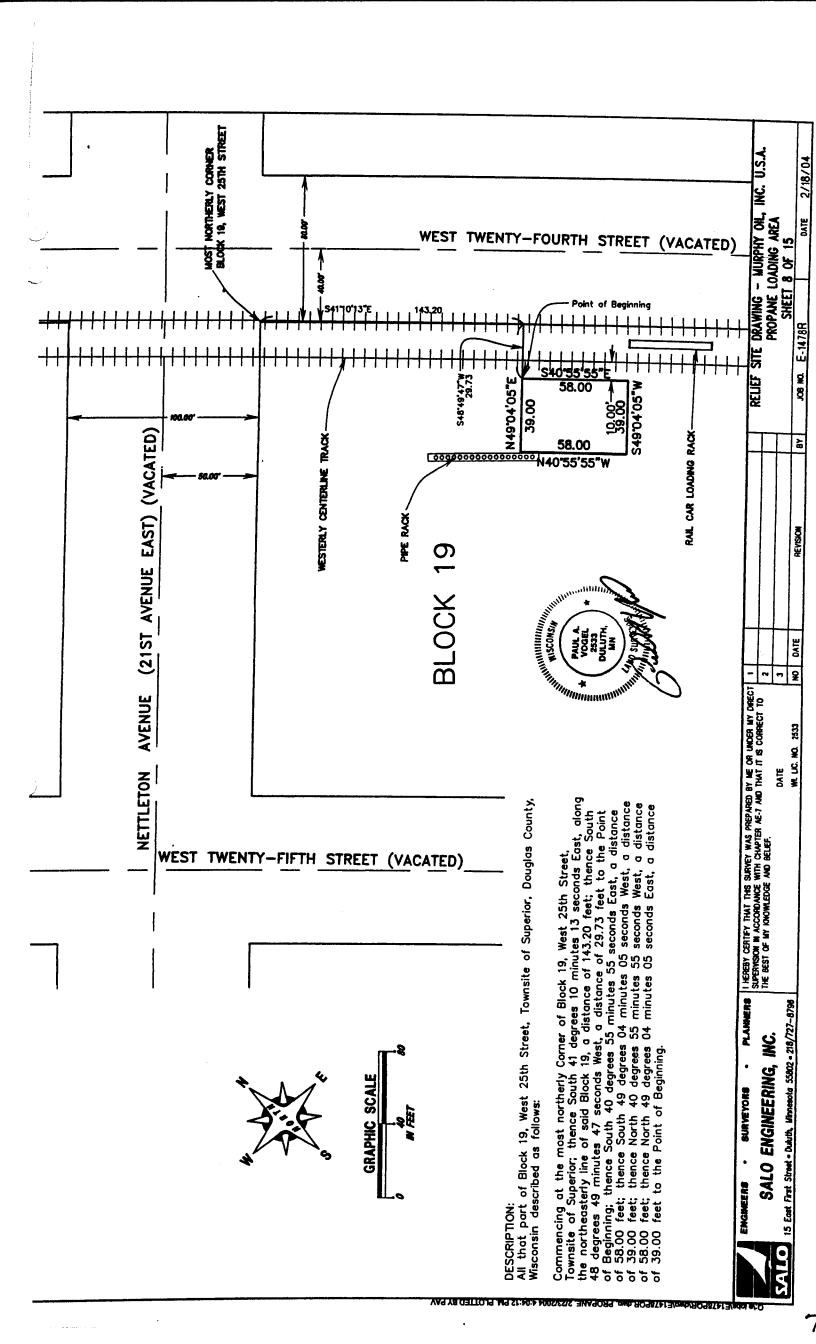
## FORMER TANK 66 BASIN SOIL SAMPLING RESULTS (mg/kg) MAY 1999

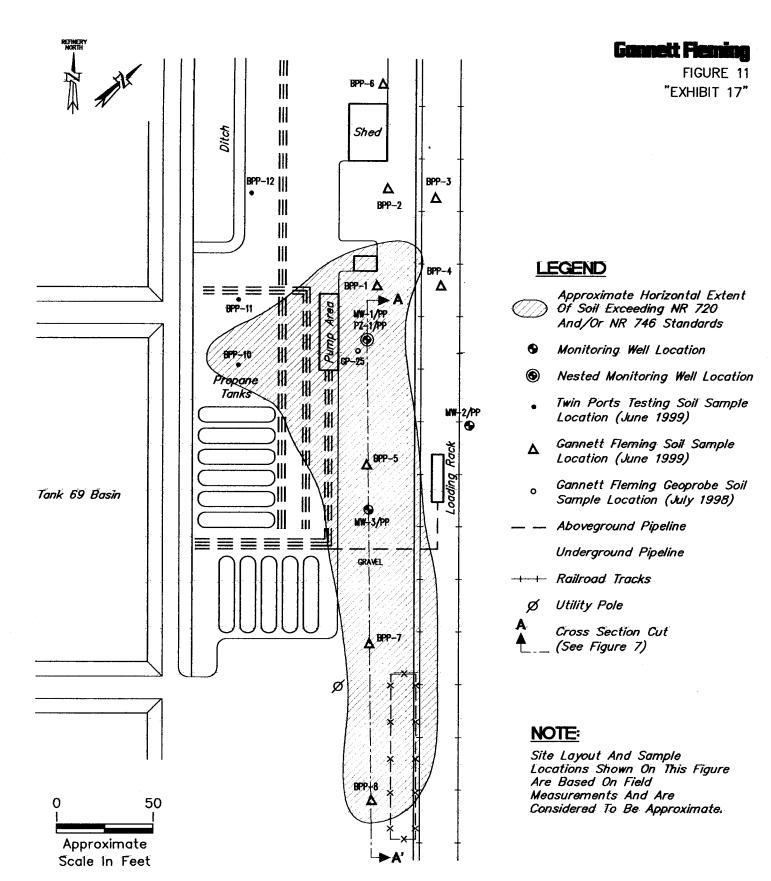
			Ü		D41.				
			õ	Sample 1.D. and	and Depth			NR 746 Regiduel	NR 746 Direct Contact
Parameter	GP99-1	19-1	GP99-2	9-2	5	GP99-3	NR 720 RCL	Petroleum Product in	Standards in Unner 4
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Soil Screening Levels	Feet of Soil
Lead	1.4	6.77	1.14	9.95	49.3	12.9	200	SN	
GRO	954	752	51.3	869	5,100	3.280	250	SN	
Benzene	22.8	2.6	<0.030	3.71	<13.3	5.94	0.0055	8.5	
Ethylbenzene	113	2.76	0.041	14.2	<26.6	80.7	2.9	46	4.6
Toluene	73.4	△.53	0.057	35.2	<26.6	1.9	1.5	38	
Total Xylenes	757	5.49	0.239	92.3	53.4	572	4.1	42	
Trimethylbenzenes	746	23.2	1.097	87.9	455	375	SN	76	
MTBE	<1.14	⊄0.53	<0.030	<0.534	<26.6	<3.03	SN	SN	

		Sample I.D. and Depth	and Depth			NR 746 Residual	NR 746 Direct Contact
Parameter	GP99-4	99-4	ð	GP99-5	NR 720 RCL	Petroleum Product in	Standards in Unner 4
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Soil Screening Levels	Fret of Soil
Lead	86.5	4.95	2.23	22.3	200	SN	
GRO	223	258	2,230		250	SN	SN.
Benzene	0.298	0.177	40.218	2.84	0.0055	8.5	
Ethylbenzene	2.98	2.28	<0.435	6	00	37	71.1
Toluene	0.617	ľ	<0.435		31	20	
Total Xylenes	6.426	2.59	0.789		4.1	30	
Trimethylbenzenes	7.79	5.44	57.3		SN	76	70
MTBE	<0.033	<0.031	<0.435	<0.033	SN	SN	

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis. Soil samples collected by Twin Ports Testing using a Geoprobe. Concentrations in bold exceed applicable NR 720 RCLs. NS = No standard.

M:CLERICAL/PROJECTS/34200/34265.003/sables/DFK/3734265-003\_010.xs/j/able 5





## EXTENT OF SOIL IMPACTS AT PROPANE/BUTANE LOADING AREA

MURPHY OIL USA, INC SUPERIOR, WISCONSIN

TABLE 6

# ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample I.D. and Depth	and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	æ	GP-25	BPP-1	P-1	BPP-2	P-2	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	NM	MN	1	>1000	0.8	>1000	SN	SN	SN
Lead	15.4	AN	9.74	4.08	<0.56	5.58	200	SN	SN
DRO	1,100	120	NA	AN	NA	ΨN	250	SN	SN
GRO	540	088	<5.2	280	<b>&lt;5.3</b>	79	250	SN	SN
Benzene	5.7	13	<0.026	4.816	<0.026	<0.033	0.0055	1.1	8.5
Ethylbenzene	<0.55	61	0.036	5.479	<0.026	0.075	2.9	4.6	4.6
Toluene	<0.55	99	0.051	16.099	<0.026	<0.033	1.5	38	38
Total Xylenes	21	145	0.187	35.723	<0.052	0.14	4.1	42	42
Trimethylbenzenes	49	86	0.073	22.149	<0.052	2.496	SN	8	94
MTBE	<0.45	<0.45	<0.026	<0.536	<0.026	<0.033	SN	SN	SN
Ethylene Dibromide	<0.35	<0.35	NA	NA	NA	NA	SN	SN	SN
Fluoranthene	3.9	0.068	NA	NA	NA	AN	SN	SN	SN
Indeno(1,2,3-cd)pyrene	0.17	<0.004	NA	NA	NA	NA	SN	SN	SN
Naphthalene	19	1.8	NA	NA	NA	NA	SN	2.7	2.7
1-Methyl Naphthalene	13	1	NA	NA	NA	ΨN	SN	SN	SN
2-Methyl Naphthalene	72	2.4	NA	NA	NA	NA	SN	SN	SN
Phenanthrene	0.77	0.054	NA	NA	NA	NA	SN	SN	NS
Pyrene	5.1	0.094	NA	NA	NA	NA	SN	SN	SN

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample I.D. and Depth	and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BP	BPP-3	BPP-4	P-4	BP	BPP-5	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	0.4	MM	1.4	>1000	6.4	>1000	SN	SN	SN
Lead	9.57	4.8	5.5	5.85	39.9	3.78	200	SN	SN
DRO	NA	NA	NA	NA	AN	Y'N	250	SN	SN
GRO	<5.4	845	<5.5	14.1	12.9	743	250	SN	SN
Benzene	<0.027	<0.270	<0.027	<0.031	<0.028	0.855	0.0055	1.1	8.5
Ethylbenzene	<0.027	0.888	<0.027	0.327	<0.028	5.533	2.9	4.6	4.6
Toluene	<0.027	<0.540	<0.027	0.033	<0.028	12.732	1.5	38	38
Total Xylenes	<0.054	0.861	<0.054	0.147	<0.056	24.176	4.1	42	42
Trimethylbenzenes	<0.054	34.397	<0.054	0.207	<0.056	32.385	SN	94	94
MTBE	<0.027	<0.540	<0.027	<0.031	<0.028	<0.269	SN	SN	SN
Ethylene Dibromide	NA	NA	NA	NA	NA	AN	SN	SN	SN
Fluoranthene	NA	NA	NA	AN	NA	NA	SN	SN	SN
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA NA	SN	SN	SN
Naphthalene	NA	NA	NA	NA	ΑN	NA	SN	2.7	2.7
1-Methyl Naphthalene	NA	NA	AN	Ϋ́Α	Ϋ́	NA	SN	SN	SN
2-Methyl Naphthalene	NA	NA	NA	Ϋ́	¥Ν	Ϋ́N	SN	NS	SN
Phenanthrene	NA	NA	NA	AN	AN	AN	SN	SN	SN
Pyrene	NA	NA	NA	NA	AN	AN	SN	SN	SN

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample LD. and Depth	and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BP	BPP-6	BPP-7	P-7	BP	BPP-8	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	<b>Product in Soil Pores</b>
FID (ppm)	0.4	1.2	400	>1000	009	4	SN	SN	NS
Lead	13.6	4.77	20.5	16.5	8.63	5.18	200	SN	SN
DRO	NA	VΝ	NA	AN	NA	NA	250	SN	NS
GRO	<7.4	8'9>	25.6	899	216	<6.3	250	SN	SN
Benzene	<0.037	<0.034	0.076	2.048	0.954	<0.032	0.0055	1.1	8.5
Ethylbenzene	<0.037	<0.034	0.133	4.871	1.477	<0.032	2.9	4.6	4.6
Toluene	<0.037	<0.034	<0.028	14.578	0.589	<0.032	1.5	38	38
Total Xylenes	<0.074	890'0>	0.345	22.58	18,118	<0.064	4.1	42	42
Trimethylbenzenes	<0.074	<0.068	0.564	23.642	24.355	<0.064	SN	<b>7</b> 6	94
MTBE	<0.037	<0.034	<0.028	<0.545	<0.570	<0.032	SN	SN	SN
Ethylene Dibromide	NA	NA	NA	NA	NA	AN	SN	SN	SN
Fluoranthene	NA	NA	AN	NA	NA	AN	SN	SN	SN
Indeno(1,2,3-cd)pyrene	NA	NA	AN	AN	ΥN	Ϋ́Ν	SN	SN	SN
Naphthalene	NA	NA	NA	NA	NA	Ϋ́Ν	SN	2.7	2.7
1-Methyl Naphthalene	NA	NA	ΑN	Ϋ́Ν	AN	ΨZ	SN	SN	SN
2-Methyl Naphthalene	NA	NA	NA	AN	NA	AN	SN	SN	SN
Phenanthrene	NA	NA	AN	NA	AN	AN	SN	SN	SN
Pyrene	NA	NA	NA	NA	NA	NA	SN	SN	SN

TABLE 6

# ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

							NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BPP-10	-10	BPP-11	11.	BPP-12	-12	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	264	4,500	62	3,400	105	1,511	NS	SN	SN
Lead	695	5.46	319	4.71	5.59	21.9	200	NS	SN
DRO	NA	NA	NA	NA	NA	NA	250	NS	NS
GRO	417	702	22.7	42.4	35.9	799	250	NS	SN
Benzene	<0.140	0.824	<0.035	<0.272	<0.131	<0.138	0.0055	1.1	8.5
Ethylbenzene	<0.280	4.85	<0.035	0.867	<0.261	0.627	2.9	4.6	4.6
Toluene	0.303	2.12	<0.035	<0.544	<0.261	<0.277	1.5	38	38
Total Xylenes	0.884	22.8	0.064	1.15	<0.522	0.859	4.1	42	42
Trimethylbenzenes	<0.560	47.2	<0.070	<0.070	<0.522	13.6	NS	94	94
MTBE	<0.280	<1.37	0.04*	<0.544	<0.261	<0.277	SN	NS	SN
Ethylene Dibromide	NA	NA	NA	NA	NA	NA	SN	NS	SN
Fluoranthene	NA	AN	NA	NA	ΝA	NA	SN	NS	NS
Indeno(1,2,3-cd)pyrene	ΥN	NA	NA	NA	Ϋ́N	NA	SN	NS	SN
Naphthalene	ΑN	NA	NA	NA	ΝA	NA	SN	2.7	2.7
1-Methyl Naphthalene	AN	NA	AN	AN	ΝA	NA	SN	NS	NS
2-Methyl Naphthalene	AN	NA	NA	NA	ΑN	NA	SN	NS	SN
Phenanthrene	Ϋ́Υ	NA	ΝA	AN	ΑN	NA	SN	SN	SN
Pyrene	NA	NA	NA	NA	NA	NA	SN	SN	SN

## TABLE 6

# ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

NOTES

Sample GP-25 collected by Gannett Fleming on July 22, 1998.

Samples BPP-1 through BPP-8 collected by Gannett Fleming on June 2 and 3, 1999.

Samples BPP-10 through BPP-12 collected by Twin Ports Testing on June 14, 1999.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable NR 720 RCL.

Result shaded exceed applicable NR 746 direct contact standard.

= Flame ionization detector.

= Parts per million.

mdd

= Not analyzed.

= No standard.

= Questionable result due to possible manufacturer derived contaminant in methanol.

M:\CLERICAL\PROJECTS\34200\34265.003\tables\DFK\\3734265.003\_005.xls]Table 6

## TABLE 7

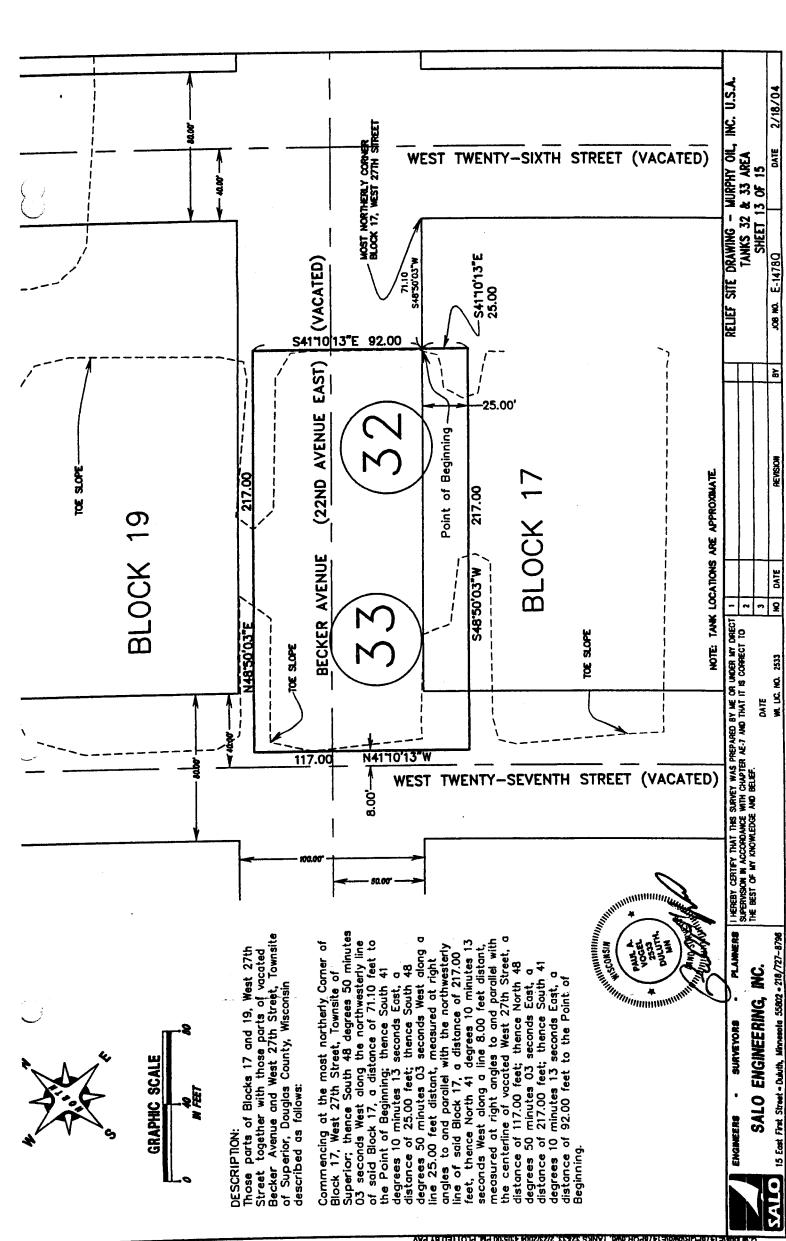
## ANALYTICAL RESULTS FOR SOIL SAMPLES FROM TANKS 3233 BASIN (mg/kg)

																	F	Diverse Comtact	NR 746 Free
							Sam	nple I.D.	and Depth	<b>-</b>							÷		1.4
Dememeter	R22_1	-	R32.2		R32_3		R32-	4	B33-1	-	B33-2	-7	B33-3		B33-4		720		
		1		4 5 0	1 2 6	# Y V	136	4.5.0	1.2 #	4.5 #	1-2 ft.	454	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.		(upper 4 ft)	Concentr
	11.7-1	110	71 7-1		77.7	311					Š.	9	1977	1075	7	17/2	250		SY
DRO	45,000	400	386	35	1.200		380	220	1,800	630	200	3	9	360				-	× 8
Benzene	13	=	0 010	1.2	3.4	9.7	9'9	Ϋ́N	Ø.50	40.50	0.50	<0.50	<1.2	2.5	<0.025	0.77	0.0055		6.5
Ethylhenzone	34	0 0	7.4	7	9	Q.	5	ž	6.4	191	Ø.50	6.6	9.9	6.2	<0.025	1.6	2.9	4.0	4.0
Eury tochicotte	0	200	֚֚֚֚֚֚֚֚֓֟֝֟֝֟֝֟֝֟֟֝֟֟֟֟֟ <u>֚</u>	500	, 6	3 5	13.5	Ž	9	62	50	5	<1.2	2.5	<0.025	<0.50	1.5	38	38
Tolder	0.0		C. 1	70.5	١		*	12	1.	V	V	0 V		14.5	△0.050	4.9	4.1	42	42
I our Aylenes	177	0.1		(:)	o.	•	7			,		0	167	5	050	3.4	SZ	83	8
Trimethylbenzenes	146	3.1	11.11	8.2	21	46	45	ΝA	7:	3.3	?;	200	7.01	3			1017	NIC	SN
MTBE	<2.5	<0.62	<0.62	0.46*	69'0	2.4	<2.5	NA	0.50	0.50	Ø. 8	\ <u>\</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<1.2	2	₹70.02	20.00	CV.	1217	
Detected Polycyclic Aromatic Hydrocarbons	romatic E	vdrocarb	STO														153.5	110	NIC
Finovanthene	1900	<0 61 <0 0049	0.32	0 32 <0 0049	5.4	3.3	4	1.5	3.9	0.75	0.23	<0.025	4	0.42	<0.0049 <0.0049	0.0049	S	SN	CAL
Nanhthalene	200	*9900	<b>40 062</b>	Ø 031	< 12	ľ	931	<b>40.16</b>	4.1	40.16	40.031	40.16	8.5	0.59	40.031	0.031	SZ	2.7	7.7
Dhenenthrene	7.0		510		\$1 G	١	<0.035	Ø10.0>	1-6	0.11	0.012	0.07	2.1	0.21	<0.0035	<0.0035	NS	SN	SZ
Porene	)ç	-	0.64	0.014		Ø 031	△ 062	₩ 031	5.9	E	0.5	1.4	3.3	0.35	<0.0062	0.013*	SZ	SN	SN
1-Methyl nanhthalene	42	160			6.1>	88	2.2	8: 1	17	1.7	40.047	7	22	2.5	<0.047	△0.047	SS	NS	SZ
2-Methyl naphthalene	78	1.6	1.2	1	<1.2	15	5.5	4.1	19	2.4	<0.031	3	33	3.3	<0.031	△.031	NS	NS	SN.
				1															

NOTES:
Samples collected on December 16 and 17, 1998.
Results reported in units of milligrams per kilogram (mg/kg) on a dry weight basis.
Results in bold exceed applicable NR 720 RCL.s.
NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.
NS = No standard

\* Reported concentration below the quantitation limit.

M:\CLERICAL\PROJECTS\34200\34265.003\text{tables\JIK\(3T34265\_027.xls)Thble 7



"EXHIBIT 19"

